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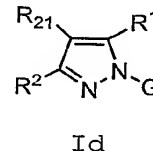
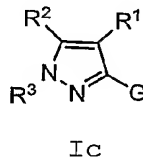
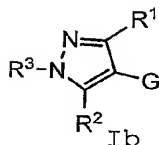
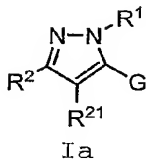
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(54) Title: PYRAZOLE BASED LXR MODULATORS



(57) Abstract: Compounds of the invention, such as compounds of Formulae Ia, Ib, Ic, or Id and pharmaceutically acceptable salts, isomers, and prodrugs thereof, which are useful as modulators of the activity of liver X receptors, where R1, R2, R21, R3, and G are defined herein. Pharmaceutical compositions containing the compounds and methods of using the compounds are also disclosed.

PYRAZOLE BASED LXR MODULATORS

Cross-reference to related applications

This application claims priority to United States Provisional Application Number 60/694,372, filed June 27, 2005, and United States Provisional Application Number 60/736,120, filed November 10, 2005, both of which are hereby incorporated by reference in their entirety.

Field of the invention

This invention relates to compounds that modulate the activity of liver X receptors (LXRs). The invention also provides pharmaceutical compositions comprising the compounds of the invention and methods of utilizing those compositions for modulating the activity of liver X receptor. In particular, pyrazole isomers and derivatives are provided for modulating the activity of LXRs.

BACKGROUND OF THE INVENTION

Nuclear Receptors

Nuclear receptors are a superfamily of regulatory proteins that are structurally and functionally related and are receptors for, *e.g.*, steroids, retinoids, vitamin D and thyroid hormones (see, *e.g.*, Evans (1988) *Science* 240:889-895). These proteins bind to *cis*-acting elements in the promoters of their target genes and modulate gene expression in response to ligands for the receptors.

Nuclear receptors can be classified based on their DNA binding properties (see, *e.g.*, Evans, *supra* and Glass (1994) *Endocr. Rev.* 15:391-407). For example, one class of nuclear receptors includes the glucocorticoid, estrogen, androgen, progestin and mineralocorticoid receptors which bind as homodimers to hormone response elements (HREs) organized as inverted repeats (see, *e.g.*, Glass, *supra*). A second class of receptors, including those activated by retinoic acid, thyroid hormone, vitamin D₃, fatty acids/peroxisome proliferators (*i.e.*, peroxisome proliferator activated receptors or PPARs) and ecdysone, bind to HREs as heterodimers with a common partner, the retinoid X receptors (*i.e.*, RXRs, also known as the 9-*cis* retinoic acid receptors; see, *e.g.*, Levin *et al.* (1992) *Nature* 355:359-361 and Heyman *et al.* (1992) *Cell* 68:397-406).

RXRs are unique among the nuclear receptors in that they bind DNA as a homodimer and are required as a heterodimeric partner for a number of additional nuclear receptors to bind DNA (see, *e.g.*, Mangelsdorf *et al.* (1995) *Cell* 83:841-850). The latter receptors, termed the class II nuclear receptor subfamily, include many which are established or implicated as important regulators of gene expression.

There are three RXR genes (see, *e.g.*, Mangelsdorf *et al.* (1992) *Genes Dev.* 6:329-344), coding for RXR α , β , and γ , all of which are able to heterodimerize with any of the class II receptors, although there appear to be preferences for distinct RXR subtypes by partner receptors *in vivo* (see, *e.g.*, Chiba *et al.* (1997) *Mol. Cell. Biol.* 17:3013-3020). In the adult liver, RXR α is the most abundant of the three RXRs

(see, e.g., Mangelsdorf *et al.* (1992) *Genes Dev.* 6:329-344), suggesting that it might have a prominent role in hepatic functions that involve regulation by class II nuclear receptors. See also, Wan *et al.* (2000) *Mol. Cell. Biol.* 20:4436-4444.

Orphan Nuclear Receptors

5 Included in the nuclear receptor superfamily of regulatory proteins are nuclear receptors for whom the ligand is known and those which lack known ligands. Nuclear receptors falling in the latter category are referred to as orphan nuclear receptors. The search for activators for orphan receptors has led to the discovery of previously unknown signaling pathways (see, e.g., Levin *et al.*, (1992), *supra* and Heyman *et al.*, (1992), *supra*). For example, it has been reported that bile acids, which are involved in
10 physiological processes such as cholesterol catabolism, are ligands for the farnesoid X receptor (FXR).

Because it is known that products of intermediary metabolism act as transcriptional regulators in bacteria and yeast, such molecules may serve similar functions in higher organisms (see, e.g., Tomkins (1975) *Science* 189:760-763 and O'Malley (1989) *Endocrinology* 125:1119-1120). For example, one biosynthetic pathway in higher eukaryotes is the mevalonate pathway, which leads to the synthesis of
15 cholesterol, bile acids, porphyrin, dolichol, ubiquinone, carotenoids, retinoids, vitamin D, steroid hormones and farnesylated proteins.

LXR α and LXR β

LXR α is found predominantly in the liver, with lower levels found in kidney, intestine, spleen and adrenal tissue (see, e.g., Willy, *et al.* (1995) *Gene Dev.* 9(9):1033-1045). LXR β is ubiquitous in
20 mammals and was found in nearly all tissues examined. LXRs are activated by certain naturally occurring, oxidized derivatives of cholesterol (see, e.g., Lehmann, *et al.* (1997) *J. Biol. Chem.* 272(6):3137-3140). LXR α is activated by oxysterol and promotes cholesterol metabolism (Peet *et al.* (1998) *Cell* 93:693-704). Thus, LXRs appear to play a role in, e.g., cholesterol metabolism (see, e.g., Janowski, *et al.* (1996) *Nature* 383:728-731).

Nuclear Receptors and Disease

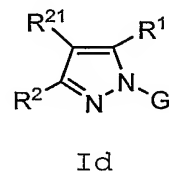
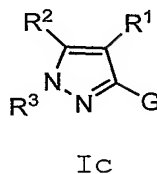
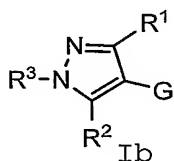
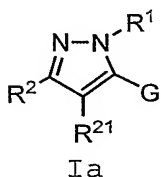
Nuclear receptor activity has been implicated in a variety of diseases and disorders, including, but not limited to, hypercholesterolemia (see, e.g., International Patent Application Publication No. WO 00/57915), osteoporosis and vitamin deficiency (see, e.g., U.S. Patent No. 6,316,5103), hyperlipoproteinemia (see, e.g., International Patent Application Publication No. WO 01/60818),
30 hypertriglyceridemia, lipodystrophy, hyperglycemia and diabetes mellitus (see, e.g., International Patent Application Publication No. WO 01/82917), atherosclerosis and gallstones (see, e.g., International Patent Application Publication No. WO 00/37077), disorders of the skin and mucous membranes (see, e.g., U.S. Patent Nos. 6,184,215 and 6,187,814, and International Patent Application Publication No.

WO 98/32444), acne (see, e.g., International Patent Application Publication No. WO 00/49992), and cancer, Parkinson's disease and Alzheimer's disease (see e.g., International Patent Application Publication No. WO 00/17334). Activity of nuclear receptors, including LXRs, FXRs and PPARs, and orphan nuclear receptors, has been implicated in physiological processes including, but not limited to, bile acid biosynthesis, cholesterol metabolism or catabolism, and modulation of cholesterol 7 α -hydroxylase gene (CYP7A1) transcription (see, e.g., Chiang et al. (2000) J. Biol. Chem. 275:10918-10924), HDL metabolism (see, e.g., Urizar et al. (2000) J. Biol. Chem. 275:39313-39317 and International Patent Application Publication No. WO 01/03705), and increased cholesterol efflux and increased expression of ATP binding cassette transporter protein (ABC₁) (see, e.g., International Patent Application Publication No. WO 00/78972).

Thus, there is a need for compounds, compositions and methods of modulating the activity of nuclear receptors, including LXRs, FXRs, PPARs and orphan nuclear receptors. Such compounds are useful in the treatment, prevention, inhibition or amelioration of one or more symptoms of diseases or disorders in which nuclear receptor activity is implicated.

SUMMARY OF THE INVENTION

In one aspect, the present invention provides a compound according the following formulas Ia-d,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof, which are useful as modulators of the activity of liver X receptors (LXR), where R¹, R², R²¹, R³, and G are defined herein.

Compounds for use in compositions and methods for modulating the activity of nuclear receptors are provided. In particular, compounds of the invention which are useful for modulating liver X receptors, LXR α and LXR β , FXR, PPAR and/or orphan nuclear receptors are provided.

In one embodiment, the compounds provided herein are agonists of LXR. In another embodiment, the compounds provided herein are antagonists of LXR. Agonists that exhibit low efficacy are, in certain embodiments, antagonists.

Another aspect of this invention is directed to methods of treating, preventing, or ameliorating the symptoms of a disease or disorder that is modulated or otherwise affected by nuclear receptor activity or in which nuclear receptor activity is implicated, comprising administering to a subject in need

thereof a therapeutically effective amount of a compound of formulae Ia, Ib, Ic, or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of reducing cholesterol levels in a subject in need thereof, comprising administering an effective cholesterol level-reducing amount of a compound
5 of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of treating, preventing, inhibiting, or ameliorating one or more symptoms of a disease or disorder which is affected by cholesterol, triglyceride, or bile acid levels, comprising administering to a subject in need thereof a therapeutically effective amount of a compound of formulae Ia, Ib, Ic, or Id, or a pharmaceutically acceptable derivative
10 thereof.

Another aspect of this invention is directed to methods of modulating nuclear receptor activity, comprising contacting the nuclear receptor with a compound of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of modulating cholesterol metabolism, comprising administering an effective cholesterol metabolism-modulating amount of a compound of
15 formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of treating, preventing, inhibiting or ameliorating one or more symptoms of hypocholesterolemia in a subject in need thereof, comprising administering a therapeutically effective amount of a compound of formulae Ia, Ib, Ic or Id, or a
20 pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of increasing cholesterol efflux from cells of a subject, comprising administering an effective cholesterol efflux-increasing amount of a compound of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of increasing the expression of ATP-Binding Cassette (ABC₁) in the cells of a subject, comprising administering an effective ABC₁
25 expression-increasing amount of a compound of formulae Ia, Ib, Ic, or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to in vitro methods for altering nuclear receptor activity, comprising contacting the nuclear receptor with a compound of formulae Ia, Ib, Ic or Id, or a
30 pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to methods of reducing cholesterol levels in a subject in need thereof, comprising administering an effective cholesterol level-reducing amount of a compound of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

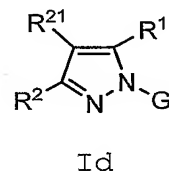
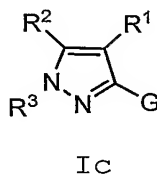
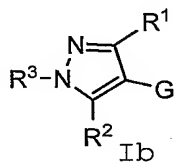
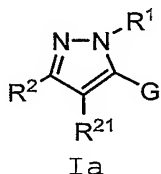
Another aspect of this invention is directed to pharmaceutical compositions comprising a pharmaceutically acceptable carrier, excipient and/or diluent and a compound of formulae Ia, Ib, Ic or Id.

Another aspect of this invention is directed to regulation of cholesterol transport and inflammatory signaling pathways that are implicated in human disease pathology including atherosclerosis and associated diseases such as myocardial infarction and ischemic stroke in a subject in need thereof, comprising administering an effective cholesterol transport and inflammatory signaling pathways regulating amount of a compound of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

Another aspect of this invention is directed to treatment of the metabolic syndrome which comprises a constellation of disorders of the body's metabolism including obesity, hypertension and insulin resistance and diabetes including treatment of diseases resulting from compromised metabolism and immunity including atherosclerosis and diabetes as well as autoimmune disorders and diseases in a subject in need thereof, comprising administering a therapeutically effective amount of a compound of formulae Ia, Ib, Ic or Id, or a pharmaceutically acceptable derivative thereof.

DETAILED DESCRIPTION OF THE INVENTION

In a first embodiment, the present invention provides a compound according to one of the following formulas,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein,

(A) R^1 is $-L^1-R^5$, wherein

L^1 is a bond, L^5 , L^6 , $-L^5-L^6-L^5-$, or $-L^6-L^5-L^6-$, wherein

each L^5 is independently $-[C(R^{15})_2]_m-$, wherein

each R^{15} is independently hydrogen, halogen, (C_1-C_6) alkyl, (C_3-C_6) cycloalkyl, or (C_1-C_6) haloalkyl;

each L^6 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-NR^{11}-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CO-$, $-CS-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-CONR^{11}N(R^{11})_2-$, $-CONR^{11}-$, $-OCONR^{11}-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-SO_2N(R^{10})-$, $-NR^{10}CONR^{10}-$, $-NR^{10}CSNR^{10}-$, $-C(=NR^{11})-$, $-C(=NOR^{11})-$, $-C(=NN(R^{11})_2)-$, aryl, C_3-C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, heteroaryl,

heterocyclyl, wherein the aryl, cycloalkyl, cycloC₃₋₈haloalkyl, heteroaryl, or heterocyclyl are optionally substituted with one or more radicals of R¹⁴;

or L¹ is a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-,
 5 -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-,
 -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰)-, and

R⁵ is aryl, heterocyclyl, heteroaryl, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl, C₃-C₈ cycloalkyl-, -C-, -B-C-, -A-B-C-, wherein

10 A is -O-;

B is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

C is C₁-C₆alkyl, C₁-C₆haloalkyl, SO₂R¹¹, SR¹¹, SO₂N(R¹¹)₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹,
 CON(R¹¹)₂, or N(R¹¹)₂;

wherein R⁵ is optionally substituted with one or more R^{5a},

15 wherein each R^{5a} is independently C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl, halogen, nitro, heterocyclyloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

20 B' is -[C(R¹⁵)₂]_m- or -C₃-C₈ cycloalkyl -;

C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl;

wherein each R^{5a} is optionally substituted one or more groups which are independently
 25 C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, C₀-C₆ alkoxyaryl, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, aryl, aryl-C₁-C₆ alkyl-, heteroaryl, halogen, -NO₂, -C≡N, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -SO₂R¹¹, -OR¹¹, -SR¹¹, -SO₂R¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, or
 30 -N(R¹¹)₂;

R² and R²¹ are -L³-R⁷, wherein

each L³ is independently a bond -V¹-(CH₂)_n-V¹-, or -(CH₂)_m-V¹-(CH₂)_n- wherein
 n is 0-6; and

each V^1 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$,
 $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-NR^7-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-OCO-$, $-CO-$, $-CS-$,
 $-CONR^{10}-$, $-C(=N)(R^{11})-$, $-C(=N-OR^{11})-$, $-C[=N-N(R^{11})_2]$, $-CO_2-$, $-OC(=O)-$,
 $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-SO_2N(R^{10})-$, $-NR^{10}CONR^{10}-$, $-NR^{10}CSNR^{10}-$,
 5 C_3-C_8 cycloalkyl, or C_3-C_8 cyclohaloalkyl;

or each L^3 is independently a C_{2-6} alidiyl chain, wherein the alidiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$,
 $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$,
 $-SO_2-$, $-N(R^{10})SO_2-$, or $-SO_2N(R^{10})$; and

10 each R^7 is independently hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, C_1-C_6 alkyl-heterocyclyl, C_1-C_6 alkyl-heteroaryl, C_1-C_6 alkyl-aryl, $-Z-$, $-Y-Z$, or $-X-Y-Z$, wherein

X is $-O-$;

Y is $-[C(R^{15})_2]_m-$, C_2-C_6 alkenyl, or C_3-C_8 cycloalkyl;

Z is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
 15 $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$,
 $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$;

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C_2-C_6 alkenyl, C_1-C_6 alkyl-heterocyclyl, C_1-C_6 alkyl-heteroaryl, C_1-C_6 alkyl-aryl, C_0-C_6 alkoxyheteroaryl, C_0-C_6 alkoxyheterocyclyl, haloaryl, aryloxy,
 20 aralkyloxy, aryloxyalkyl, C_1-C_6 alkoxyaryl, aryl C_0-C_6 alkylcarboxy, $C(R^{11})=C(R^{11})-COOR^{11}$, C_0-C_6 alkoxyheteroaryl, C_0-C_6 alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, C_3-C_8 cycloalkyl, heteroaryloxy, $-Z'$, $-Y'-Z'$, or $-X'-Y'-Z'$, wherein

X' is $-O-$;

25 Y' is $-[C(R^{15})_2]_m-$ or C_3-C_8 cycloalkyl;

Z' is C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-OR^{11}$, $-SR^{11}$, $-S(=O)_2R^{11}$, $-C(=O)R^{11}$,
 $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N(R^{11})C(=O)R^{11}$,
 $-S(=O)_2N(R^{11})C(=O)R^{11}$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$,
 $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-OR^{11}$, $-N(R^{11})C(=O)O-R^{11}$, or
 30 $-N(R^{11})S(=O)_2R^{11}$;

wherein each R^{7a} is optionally substituted with one or more R^8 ,

wherein each R^8 is independently halogen, nitro, cyano, heteroaryl, C_1-C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkyl, C_1-C_6 haloalkyl(OR^{11}), C_0-C_6 alkyl OR^{11} , C_0-C_6 alkyl $CON(R^{11})_2$, C_0-C_6

alkylCOR¹¹, C₀-C₆ alkylCOOR¹¹, or C₀-C₆ alkylSO₂R¹¹; and wherein if two R^{7a} are present on the same carbon, then they may be taken together to form a cycloalkyl or heterocyclyl group; provided that R² and R²¹ are not simultaneously -H;

R³ is -L-R⁶, wherein

- 5 L is a bond, -X³-(CH₂)_n-X³-, -(CH₂)_m-X³-(CH₂)_n- or -(CH₂)_{l+w}-Y³-(CH₂)_w- wherein n is 0-6; each w is independently 0-5; and each X³ is independently a bond, -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C≡C-, -CO-, -CS-, -CONR¹⁰-, -C(=N)(R¹¹)-, -C(=N-OR¹¹)-, -C[=N-N(R¹¹)₂], -CO₂-, -SO₂-, or -SO₂N(R¹⁰)-, and
- 10 Y³ is -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -OCO-, -OC(=O)N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -N(R¹⁰)SO₂-, or -NR¹⁰CSNR¹⁰-;
- or L is a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰); and
- 15 R⁶ is C₁-C₆ alkyl, C₁-C₆ haloalkyl, aryl, C₃-C₈ cycloalkyl, heteroaryl, heterocyclyl, -CN, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, or -C(=O)N(R¹¹)(OR¹¹), wherein the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with one or more R^{6a},
- 20 wherein each R^{6a} is independently -Z'', -Y''-Z'', or -X''-Y''-Z'', wherein X'' is -O-; Y'' is -[C(R¹⁵)₂]_m-, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, heterocyclyl, aryl, or heteroaryl, wherein
- 25 the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with at least one group which is each independently Z'';
- Z'' is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -N(R¹¹)C(=O)N(R¹¹)₂, -OC(=O)-OR¹¹, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or
- 30 -N(R¹¹)COOR¹¹;

each R¹⁰ is independently -R¹¹, -C(=O)R¹¹, -CO₂R¹¹, or -SO₂R¹¹;

each R¹¹ is independently -hydrogen, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, -N(R¹²)₂, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, -(C₁-

C₆alkyl-(C₃-C₈)cycloalkyl, aryl, -(C₁-C₆)alkyl-aryl, heteroaryl, -(C₁-C₆)alkyl-heteroaryl, heterocyclyl, or -(C₁-C₆)alkyl-heterocyclyl,

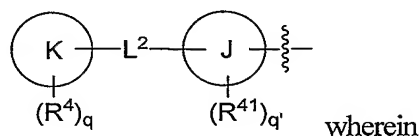
wherein any of R¹¹ is optionally substituted with one or more radicals of R¹²;

each R¹² is independently hydrogen, halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, (C₀-C₆ alkyl)C=O(OR¹³); C₀-C₆ alkylOR¹³, C₀-C₆ alkylCOR¹³, C₀-C₆ alkylSO₂R¹³, C₀-C₆ alkylCN, C₀-C₆ alkylCON(R¹³)₂, C₀-C₆ alkylCONR¹³OR¹³, C₀-C₆ alkylSO₂N(R¹³)₂, C₀-C₆ alkylSR¹³, C₀-C₆ haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C₀-C₆alkoxyaryl, aryl C₀-C₆ alkylcarboxy, C₀-C₆ alkylNR¹³SO₂ R¹³, -C₀-C₆ alkylN(R¹³)₂, or OC₀-C₆ alkylCOOR¹³;

each R¹³ is independently hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, or (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-;

each R¹⁴ is independently C₁-C₆ alkyl, C₁-C₆ alkoxy, halogen, C₁-C₆ haloalkyl, C₀-C₆ alkylCON(R¹¹)₂, C₀-C₆ alkylCONR¹¹OR¹¹, C₀-C₆ alkylOR¹¹, or C₀-C₆ alkylCOOR¹¹;

G is a group of the formula,



J is aryl, heteroaryl, or absent;

K is aryl, heteroaryl, or absent;

each R⁴ is independently halogen, nitro, C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -heterocyclyl-aryl, -heterocyclyl-heteroaryl, CR¹¹=CR¹¹COOR¹¹, aryloxy, -S-aryl, aralkyloxy, aryloxyalkyl, C₁-C₆ alkoxyaryl, aryl C₀-C₆ alkylcarboxy, C₀-C₆ alkoxyheteroaryl, C₀-C₆ alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, -M, -E-M, or -D-E-M, wherein

D is -O-;

E is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

M is C₁-C₆alkyl, C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂, -OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SO₂R¹¹, -SO₂NR¹¹COR¹¹, -SOR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹,

wherein each R⁴ is optionally substituted with one or more R^{4a},

wherein each R^{4a} is independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, C₁-C₆ alkoxyaryl, aryl -C₁-C₆ alkyl-aryl, C₀-C₆ alkylcarboxy, -M', -E'-M', or -D'-E'-M'

D' is -O-;

E' is $-\text{[C(R}^{15})_2]_m-$ or C₃-C₈ cycloalkyl;

M' is -C₁-C₆alkyl, -C₁-C₆haloalkyl, COR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹¹,
-N(R¹¹)₂, COOR¹¹, C≡N, OR¹¹, -NR¹¹COR¹¹, NR¹¹SO₂R¹¹, SO₂R¹¹,
SO₂N(R¹¹)₂, or SR¹¹;

each R⁴¹ is independently halogen, nitro, C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl,
-C₁-C₆ alkyl-aryl, -M'', -E''-M'', or -D''-E''-M'', wherein

D'' is -O-;

E'' is $-\text{[C(R}^{15})_2]_m-$ or C₃-C₈ cycloalkyl;

M'' is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹,
-OCON(R¹¹)₂, -OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -
SOR¹¹, -SO₂R¹¹, -SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹,

wherein each R⁴¹ is optionally substituted with one or more R^{4a};

L² is a bond, -CH=CHCOO-, -OC₀-C₆alkylCOO-, $-\text{[C(R}^{15})_2]_m-\text{V}^2-\text{[C(R}^{15})_2]_n-$, or
 $-\text{V}^2-\text{[C(R}^{15})_2]_m-\text{V}^2-$, wherein

n is 0-6; and

each V² is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂NR¹¹-,
-C(R¹¹)₂O-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CON(R¹¹)-,
-CON(R¹¹)O-, -CO-, -CS-, -CO₂-, -OR¹¹N-, -OR¹¹COO-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-,
-N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-, C₃-C₈ cycloalkyl, -C(=NR¹¹)-, -C(=NOR¹¹)-,
-C(=NN(R¹¹)₂)-, -NR¹⁰CSNR¹⁰-, -C(O)-heterocyclyl, or cycloC₃₋₈haloalkyl, wherein the
heterocyclyl is optionally substituted with one or more groups independently selected from -
OR¹¹, -COOR¹¹, and -CON(R¹¹)₂;

or L² is a C₂₋₆ alidiyl chain, wherein alidiyl chain is optionally interrupted by -C(R¹¹)₂-,
-C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-,
-N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CON(R¹¹)-, -CON(R¹¹)O-, -CO-, -CO₂-, -OC(=O)-,
-OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, aryl, C₃-C₈ cycloalkyl, heteroaryl, or
heterocyclyl

wherein the aryl, cycloalkyl, heteroaryl, or heterocyclyl is optionally substituted with
one or more R⁹, wherein

each R⁹ is independently halogen, C₁-C₆ haloalkyl, C₁-C₆ alkyl, C₁-C₆
alkyloxy, C₀-C₆ alkyl or C₁-C₆ alkylCOOR¹¹;

each m is independently 0, 1, 2, 3, 4, 5 or 6;

q is 0, 1, 2, 3, 4 or 5;

q' is 0, 1, 2, 3, or 4, and

(B) provided that,

- (i) q may be 0 only if L^2 is not a bond or if K is not phenyl;
- 5 (ii) the compound is not 2-methyl-5-(1-m-tolyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzenesulfonamide;
- (iii) if L^2 is a bond, then both J and K are not absent;
- (iv) if K is absent, then q is 1 and R^4 is bonded directly to L^2 ;
- (v) if L^2 is SO_2 or $SO_2N(R^{10})$, then R^5 is substituted with at least one R^{5a} ;
- 10 (vi) if the compound is defined by formula Ia, then
 - (a) R^1 is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
 - (b) if R^1 is 4-fluorophenyl, then G is not 4-[($H_2NS(=O)_2$)]phenyl-; and
 - (c) R^2 and R^{21} are not 4-hydroxyphenyl;
- (vii) if the compound is defined by formula Ib, then
 - 15 (a) R^2 and R^3 are not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl; and
 - (b) R^1 is not 4-hydroxyphenyl;
- (viii) if the compound is defined by formula Ic, then
 - 20 (a) R^2 and R^3 are not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
 - (b) J is not pyridyl; and
 - (c) G is not 3- or 4-methoxyphenyl; and
- (ix) if the compound is defined by formula Id, then
 - 25 (a) if L^1 is a bond, then R^1 is not thienyl or 5-methylthienyl;
 - (b) G is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
 - (c) if G is 4-fluorophenyl, then R^1 is not 4-[($H_2NS(=O)_2$)]phenyl-;
 - (d) if J = Ph, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl, 3-fluorophenyl, 4-methoxyphenyl, or 5-chlorothieryl;
 - (e) if J = pyridyl, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl;
 - 30 (f) if J = Ph, L^2 is a bond, and q is 2, then K and both R^4 together are not 3-fluoro-4-methoxyphenyl; and
 - (g) R^1 is not 4-Me-phenyl.

In one embodiment, the invention provides the compound according to formula Ia, Ib, Ic, or Id, wherein:

R^1 is $-L^1-R^5$, wherein

L^1 is a bond, L^5 , L^6 , $-L^5-L^6-L^5-$, or $-L^6-L^5-L^6-$, wherein

5 each L^5 is independently $-[C(R^{15})_2]_m-$, wherein

m is 0, 1, 2, 3, or 4; and

each R^{15} is independently hydrogen, halogen, (C_1-C_6) alkyl, or (C_1-C_6) haloalkyl; and

L^6 is $-CO-$, $-SO_2-$, $-O-$, $-CON(R^{11})-$, $-C_3-C_6$ cycloalkyl-, or -heterocyclyl-,

wherein the cycloalkyl, or heterocyclyl is optionally substituted with one or more

10 R^{14} ; and

R^5 is aryl, heterocyclyl, heteroaryl, $-C$, or $-B-C$, wherein

B is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl-; and

C is halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl;

wherein R^5 is optionally substituted with one or more R^{5a} , wherein

15 each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, aryl, arylalkyl, aryloxy, aryloxyaryl, aryl C_{1-6} alkoxy, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, SO_2R^{11} , OR^{11} , SR^{11} , N_3 , SO_2R^{11} , COR^{11} , $SO_2N(R^{11})_2$, $SO_2NR^{11}COR^{11}$, $C\equiv N$, $C(O)OR^{11}$, $CON(R^{11})_2$, $CON(R^{11})OR^{11}$, $OCON(R^{11})_2$, $NR^{11}COR^{11}$, $NR^{11}CON(R^{11})_2$, $NR^{11}COOR^{11}$, or $N(R^{11})_2$, wherein

20 each R^{5a} is optionally substituted with one or more groups which independently are -halogen, $-C_1-C_6$ alkyl, aryloxy C_{0-6} alkyl SO_2R^{11} , C_{0-6} alkyl $COOR^{11}$, C_{0-6} alkoxyaryl, $-C_1-C_6$ haloalkyl, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-SO_2R^{11}$, $-COR^{11}$, $SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, $CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, or $-N(R^{11})_2$;

R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

R^7 is, halogen, aryl, heteroaryl, heterocyclyl, $-Z$, or $-Y-Z$, wherein

30 Y is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-C(=N-OH)R^{11}$, $-C(=S)N(R^{11})_2$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, or $-C(=O)N(R^{11})(OR^{11})$;

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen -Z', -Y'-Z', or -X'-Y'-Z', wherein

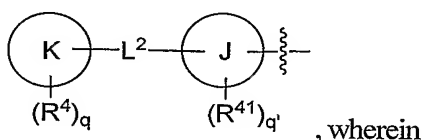
X' is -O-;

Y' is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

Z' is -H, halogen, $-OR^{11}$, $-SR^{11}$, $-S(=O)_2R^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N(R^{11})C(=O)R^{11}$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, or $-N(R^{11})S(O=)_2R^{11}$;

R^{21} and R^3 are each independently hydrogen, halogen, C_1-C_6 alkyl, or C_1-C_6 haloalkyl; and

G is a group of the formula,



J is aryl or heteroaryl;

K is aryl or heteroaryl;

each R^4 and R^{41} are independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, aryl C_0-C_6 alkylcarboxy, aryl, heteroaryl, heterocyclyl, heteroaryloxy, heterocyclyloxy, -M, -E-M, or -D-E-M, wherein

D is -O-;

E is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$,

L^2 is a bond;

q is 1, 2, or 3; and

q' is 0, 1, 2, or 3;

each R^{10} is independently $-R^{11}$, $-C(=O)R^{11}$, $-CO_2R^{11}$, or $-SO_2R^{11}$;

each R^{11} is independently -hydrogen, $-C_1-C_6$ alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, or $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-; C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, $-C_3-C_8$ cycloalkyl, $-C_1-C_6$ haloalkyl, $-N(R^{12})_2$, aryl, $-(C_1-C_6)$ alkyl-aryl, heteroaryl, $-(C_1-C_6)$ alkyl-heteroaryl, heterocyclyl, or $-(C_1-C_6)$ alkyl-heterocyclyl,

wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently halogen, C_0 - C_6 alkylN(R^{13})₂, C_1 - C_6 haloalkyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, $(C_0$ - C_6 alkyl)C=O(OR^{13}); C_0 - C_6 alkylOR¹³, C_0 - C_6 alkylCOR¹³, C_0 - C_6 alkylSO₂R¹³, C_0 - C_6 alkylCON(R^{13})₂, C_0 - C_6 alkylCONR¹³OR¹³, C_0 - C_6 alkylSO₂N(R^{13})₂, C_0 - C_6 alkylSR¹³, C_0 - C_6 haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C_0 - C_6 alkoxyaryl, arylC₀₋₆ alkylcarboxy, C_0 - C_6 alkyl, -NR¹³SO₂ R¹³, or -OC₀₋₆ alkylCOOR¹³;

each R^{13} is independently hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, or $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-; and

each R^{14} is independently C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, C_1 - C_6 haloalkyl, C_0 - C_6 alkylCON(R^{11})₂, C_0 - C_6 alkylCONR¹¹OR¹¹, C_0 - C_6 alkylOR¹¹, or C_0 - C_6 alkylCOOR¹¹.

In one embodiment, the invention provides the compound according to formula Ia, Ib, Ic, or Id, wherein:

R^1 is -L¹-R⁵, wherein

L¹ is a bond, -C₃-C₈ cycloalkyl- or L⁵, wherein

each L⁵ is independently -[C(R^{15})₂]_m-, wherein

m is 0, 1, 2, or 3; and

each R^{15} is independently hydrogen, halogen, $(C_1$ - C_6)alkyl, or $(C_1$ - C_6)haloalkyl; and

R^5 is aryl, heterocyclyl, heteroaryl, -C, or -B-C, wherein

B is -[C(R^{15})₂]_m-, -C₃-C₆cycloalkyl-; and

C is -C₁-C₆alkyl or -C₁-C₆haloalkyl;

wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, aryl, arylalkyl, aryloxy, aryloxyaryl, arylC₁₋₆ alkoxy, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 cycloalkyl, SO₂R¹¹, OR¹¹, SR¹¹, N₃, SO₂R¹¹, COR¹¹, SO₂N(R^{11})₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹, CON(R^{11})₂, CON(R^{11})OR¹¹, OCON(R^{11})₂, NR¹¹COR¹¹, NR¹¹CON(R^{11})₂, NR¹¹COOR¹¹, or N(R^{11})₂, wherein

each R^{5a} is optionally substituted with one or more groups which independently are -halogen, -C₁-C₆ alkyl, aryloxy, C_0 - C_6 alkylSO₂R¹¹, C_0 - C_6 alkylCOOR¹¹, C_0 - C_6 alkoxyaryl, -C₁-C₆ haloalkyl, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -SO₂R¹¹, -COR¹¹, -SO₂N(R^{11})₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R^{11})₂, -CON(R^{11})OR¹¹, -OCON(R^{11})₂, -NR¹¹COR¹¹, -NR¹¹CON(R^{11})₂, -NR¹¹COOR¹¹, or -N(R^{11})₂;

R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

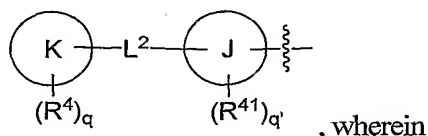
R^7 is $-Z$ or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m-$, or $-C_3-C_6$ cycloalkyl; and

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-C(=N-OH)R^{11}$, $-C(=S)N(R^{11})_2$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-OC(=O)-R^{11}$, or $-OC(=O)-N(R^{11})_2$;

R^{21} and R^3 are each independently hydrogen, halogen, C_1-C_6 alkyl, or C_1-C_6 haloalkyl; and

G is a group of the formula,



J is aryl or heteroaryl;

K is aryl or heteroaryl;

each R^4 and R^{41} are independently halogen, heteroaryl, heterocyclyl, $-M$, $-E-M$, or $-D-E-M$, wherein

D is $-O-$;

E is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-SOR^{11}$, $-SO_2R^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$,

L^2 is a bond;

q is 1, 2, or 3, and

q' is 0, 1, 2 or 3,

each R^{10} is independently $-R^{11}$, $-C(=O)R^{11}$, $-CO_2R^{11}$, or $-SO_2R^{11}$;

each R^{11} is independently $-hydrogen$, $-C_1-C_6$ alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, $-C_3-C_8$ cycloalkyl, $-(C_1-C_6)alkyl-(C_3-C_8)cycloalkyl$, $-C_1-C_6$ haloalkyl, $-N(R^{12})_2$, aryl, $-(C_1-C_6)alkyl-aryl$, heteroaryl, $-(C_1-C_6)alkyl-heteroaryl$, heterocyclyl, or $-(C_1-C_6)alkyl-heterocyclyl$,

wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently halogen, OR^{13} , $N(R^{13})_2$, C_1-C_6 haloalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, $(C_0-C_6$ alkyl) $C=O(OR^{13})$, C_0-C_6 alkyl OR^{13} , C_0-C_6 alkyl COR^{13} , C_0-C_6 alkyl SO_2R^{13} , C_0-C_6 alkyl $CON(R^{13})_2$, C_0-C_6 alkyl $CONR^{13}OR^{13}$, C_0-C_6 alkyl $SO_2N(R^{13})_2$, C_0-C_6 alkyl SR^{13} , C_0-C_6 haloalkyl OR^{13} , aryloxy, aralkyloxy,

aryloxyalkyl, C₀₋₆alkoxyaryl, arylC₀₋₆ alkylcarboxy, C₀₋₆ alkyl, -NR¹³SO₂ R¹³, or -OC₀₋₆ alkylCOOR¹³;

each R¹³ is independently hydrogen, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, (C₃₋₈ cycloalkyl)-C₁₋₆ alkyl-, (C₃₋₈ cycloalkenyl)-C₁₋₆ alkyl-, or (C₃₋₈ cycloalkyl)-C₂₋₆ alkenyl-;

5 each R¹⁴ is independently C₁₋₆ alkyl, C₁₋₆ alkoxy, halogen, C₁₋₆ haloalkyl, C₀₋₆ alkylCON(R¹¹)₂, C₀₋₆ alkylCONR¹¹OR¹¹, C₀₋₆ alkylOR¹¹, or C₀₋₆ alkylCOOR¹¹.

In one embodiment, the invention provides the compound according to formula Ia or Id, wherein:

R¹ is -L¹-R⁵, wherein

10 L¹ is a bond, L⁵, L⁶, -L⁵-L⁶-L⁵-, or -L⁶-L⁵-L⁶-, wherein

each L⁵ is independently -[C(R¹⁵)₂]_m-, wherein

m is 0, 1, 2, 3, or 4; and

each R¹⁵ is independently hydrogen, halogen, (C₁₋₆)alkyl, or (C₁₋₆)haloalkyl; and

L⁶ is -CO-, -SO₂-, -O-, -CON(R¹¹)-, -C₃₋₆cycloalkyl-, or -heterocyclyl-,

15 wherein the cycloalkyl, or heterocyclyl is optionally substituted with one or more R¹⁴; and

R⁵ is aryl, heterocyclyl, heteroaryl, -C-, or -B-C, wherein

B is -[C(R¹⁵)₂]_m- or -C₃₋₆cycloalkyl-; and

C is halogen, -C₁₋₆alkyl, or -C₁₋₆haloalkyl;

20 wherein R⁵ is optionally substituted with one or more R^{5a}, wherein

each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, (C₃₋₈ cycloalkyl)-C₁₋₆ alkyl-, (C₃₋₈ cycloalkenyl)-C₁₋₆ alkyl-, (C₃₋₈ cycloalkyl)-C₂₋₆ alkenyl-, aryl, arylalkyl, aryloxy, aryloxyaryl, arylC₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ haloalkyl, C₃₋₆cycloalkyl, SO₂R¹¹, OR¹¹, SR¹¹, N₃, SO₂R¹¹, COR¹¹, SO₂N(R¹¹)₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹, CON(R¹¹)₂, CON(R¹¹)OR¹¹, OCON(R¹¹)₂, NR¹¹COR¹¹, NR¹¹CON(R¹¹)₂, NR¹¹COOR¹¹, or N(R¹¹)₂, wherein

25 each R^{5a} is optionally substituted with one or more groups which independently are -halogen, -C₁₋₆ alkyl, aryloxy C₀₋₆ alkylSO₂R¹¹, C₀₋₆ alkylCOOR¹¹, C₀₋₆ alkoxyaryl, -C₁₋₆ haloalkyl, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -SO₂R¹¹, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, or -N(R¹¹)₂;

30 R² is -L³-R⁷, wherein L³ is a bond; and

R^7 is, halogen, aryl, heteroaryl, heterocyclyl, -Z, or -Y-Z, wherein

Y is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$,
 $-C(=N-OH)R^{11}$, $-C(=S)N(R^{11})_2$, -CN, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, or
 $-C(=O)N(R^{11})(OR^{11})$;

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, -Z', -Y'-Z', or -X'-Y'-Z', wherein

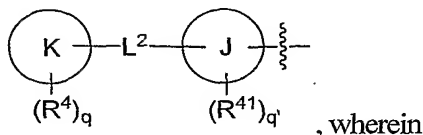
X' is -O-;

Y' is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

Z' is -H, halogen, $-OR^{11}$, $-SR^{11}$, $-S(=O)_2R^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$,
 $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N(R^{11})C(=O)R^{11}$, -CN, $-S(=O)_2N(R^{11})_2$,
 $-C(=O)N(R^{11})(OR^{11})$, or $-N(R^{11})S(=O)_2R^{11}$;

R^{21} is hydrogen, halogen, C_1-C_6 alkyl, or C_1-C_6 haloalkyl; and

G is a group of the formula,



J is aryl or heteroaryl;

K is aryl or heteroaryl;

each R^4 and R^{41} are independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, aryl C_0-C_6
 alkylcarboxy, aryl, heteroaryl, heterocyclyl, heteroaryloxy, heterocyclyloxy, -M, -E-M, or -
 D-E-M, wherein

D is -O-;

E is $-[C(R^{15})_2]_m-$ or $-C_3-C_6$ cycloalkyl; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$,
 $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SOR^{11}$, $-SO_2R^{11}$,
 $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$;

L^2 is a bond;

q is 1, 2, or 3; and

q' is 0, 1, 2, or 3;

each R^{10} is independently $-R^{11}$, $-C(=O)R^{11}$, $-CO_2R^{11}$, or $-SO_2R^{11}$;

each R^{11} is independently -hydrogen, $-C_1-C_6$ alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-
 C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, $-C_3-C_8$ cycloalkyl,

-C₁-C₆ haloalkyl, -N(R¹²)₂, aryl, -(C₁-C₆)alkyl-aryl, heteroaryl, -(C₁-C₆)alkyl-heteroaryl, heterocyclyl, or -(C₁-C₆)alkyl-heterocyclyl,

wherein any of R¹¹ is optionally substituted with one or more radicals of R¹²;

- 5 each R¹² is independently halogen, C₀-C₆alkylN(R¹³)₂, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, (C₀-C₆ alkyl)C=O(OR¹³); C₀-C₆ alkylOR¹³, C₀-C₆ alkylCOR¹³, C₀-C₆ alkylSO₂R¹³, C₀-C₆ alkylCON(R¹³)₂, C₀-C₆ alkylCONR¹³OR¹³, C₀-C₆ alkylSO₂N(R¹³)₂, C₀-C₆ alkylSR¹³, C₀-C₆ haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C₀-C₆alkoxyaryl, arylC₀-C₆ alkylcarboxy, C₀-C₆ alkyl, -NR¹³SO₂ R¹³, or -OC₀-C₆ alkylCOOR¹³;
- 10 each R¹³ is independently hydrogen C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, or (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-; and each R¹⁴ is independently C₁-C₆ alkyl, C₁-C₆ alkoxy, halogen, C₁-C₆ haloalkyl, C₀-C₆ alkylCON(R¹¹)₂, C₀-C₆ alkylCONR¹¹OR¹¹, C₀-C₆ alkylOR¹¹, or C₀-C₆ alkylCOOR¹¹.

15 In one embodiment, the invention provides the compound according to formula Ia or Id, wherein:

R¹ is -L¹-R⁵, wherein

L¹ is a bond, -C₃-C₈ cycloalkyl-, or L⁵, wherein

each L⁵ is independently -[C(R¹⁵)₂]_m-, wherein

m is 0, 1, 2, or 3; and

20 each R¹⁵ is independently hydrogen, halogen, (C₁-C₆)alkyl, or (C₁-C₆)haloalkyl; and

R⁵ is aryl, heterocyclyl, heteroaryl, -C, or -B-C, wherein

B is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl-; and

C is -C₁-C₆alkyl or -C₁-C₆haloalkyl;

wherein R⁵ is optionally substituted with one or more R^{5a}, wherein

- 25 each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl, aryl, arylalkyl, aryloxy, aryloxyaryl, arylC₁₋₆ alkoxy, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆cycloalkyl, SO₂R¹¹, OR¹¹, SR¹¹, N₃, SO₂R¹¹, COR¹¹, SO₂N(R¹¹)₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹, CON(R¹¹)₂, CON(R¹¹)OR¹¹, OCON(R¹¹)₂, NR¹¹COR¹¹, NR¹¹CON(R¹¹)₂, NR¹¹COOR¹¹, or N(R¹¹)₂, wherein
- 30

each R^{5a} is optionally substituted with one or more groups which independently are -halogen, -C₁-C₆ alkyl, aryloxy, C₀-C₆ alkylSO₂R¹¹, C₀-C₆ alkylCOOR¹¹, C₀-C₆ alkoxyaryl, -C₁-C₆ haloalkyl, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃,

-SO₂R¹¹, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹,
 -CON(R¹¹)₂, .CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂,
 -NR¹¹COOR¹¹, or -N(R¹¹)₂;

R² is -L³-R⁷, wherein

5 L³ is a bond; and

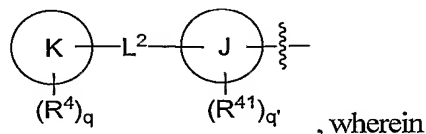
R⁷ is -Z or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂,
 -C(=N-OH)R¹¹, -C(=S)N(R¹¹)₂, -CN, -S(=O)₂N(R¹¹)₂, -OC(=O)-R¹¹, or
 10 -OC(=O)-N(R¹¹)₂;

R²¹ is hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl; and

G is a group of the formula,



J is aryl or heteroaryl;

15 K is aryl or heteroaryl;

each R⁴ and R⁴¹ are independently halogen, heteroaryl, heterocyclyl, -M, -E-M, or -D-E-M,
 wherein

D is -O-;

E is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

20 M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -
 SOR¹¹, -SO₂R¹¹, -SO₂N(R¹¹)₂, or -SR¹¹;

L² is a bond;

q is 1, 2, or 3, and

q' is 0, 1, 2 or 3,

25 each R¹⁰ is independently -R¹¹, -C(=O)R¹¹, -CO₂R¹¹, or -SO₂R¹¹;

each R¹¹ is independently -hydrogen, -C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-
 C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-C₃-C₈ cycloalkyl,
 -C₁-C₆ haloalkyl, -N(R¹²)₂, aryl, -(C₁-C₆)alkyl-aryl, heteroaryl, -(C₁-C₆)alkyl-heteroaryl, heterocyclyl, or
 -(C₁-C₆)alkyl-heterocyclyl,

30 wherein any of R¹¹ is optionally substituted with one or more radicals of R¹²;

each R^{12} is independently halogen, OR^{13} , $N(R^{13})_2$, C_1 - C_6 haloalkyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, $(C_0$ - C_6 alkyl) $C=O(OR^{13})$; C_0 - C_6 alkyl OR^{13} , C_0 - C_6 alkyl COR^{13} , C_0 - C_6 alkyl SO_2R^{13} , C_0 - C_6 alkyl $CON(R^{13})_2$, C_0 - C_6 alkyl $CONR^{13}OR^{13}$, C_0 - C_6 alkyl $SO_2N(R^{13})_2$, C_0 - C_6 alkyl SR^{13} , C_0 - C_6 haloalkyl OR^{13} , aryloxy, aralkyloxy, aryloxyalkyl, C_0 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, C_0 - C_6 alkyl, $-NR^{13}SO_2R^{13}$, or $-OC_0$ - C_6 alkyl $COOR^{13}$;

each R^{13} is independently hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, or $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-;

each R^{14} is independently C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, C_1 - C_6 haloalkyl, C_0 - C_6 alkyl $CON(R^{11})_2$, C_0 - C_6 alkyl $CONR^{11}OR^{11}$, C_0 - C_6 alkyl OR^{11} , or C_0 - C_6 alkyl $COOR^{11}$.

In another embodiment, the invention provides the compound according to formulas Ia-d,

wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m$;

L^6 is C_3 - C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, nitro, heterocyclyloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1 - C_6 alkoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m$ or $-C_3$ - C_8 cycloalkyl-;

C' is $-H$, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl.

In another embodiment, the invention provides the compound according to formulas Ia-d,

wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m$;

L^6 is C_3 - C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1 - C_6 alkoxy, - C' , - B' - C' , or - A' - B' - C' wherein

A' is -O-;

B' is $-[C(R^{15})_2]_m-$ or - C_3 - C_8 cycloalkyl -;

C' is -H, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl; and

J is aryl or heteroaryl; and

K is aryl or heteroaryl.

In another embodiment, the invention provides the compound according to formulas Ia-d,

wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m-$;

L^6 is C_3 - C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1 - C_6 alkoxy, - C' , - B' - C' , or - A' - B' - C' wherein

A' is -O-;

B' is $-[C(R^{15})_2]_m-$ or - C_3 - C_8 cycloalkyl -;

C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl;

5 J is aryl or heteroaryl;

K is aryl or heteroaryl;

R² is -L³-R⁷, wherein

L³ is a bond; and

R⁷ is hydrogen, -Z, or -Y-Z, wherein

10 Y is -[C(R¹⁵)₂]_m- or -C₂-C₆ alkenyl;

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, or -S(=O)₂N(R¹¹)₂; and

R²¹ is hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.

In another embodiment, the invention provides the compound according to formulas Ia and Id.

15 In another embodiment, the invention provides the compound according to formulas Ia and Id, wherein

R¹ is -L⁵-R⁵ or -L⁶-R⁵ wherein

L⁵ is -[C(R¹⁵)₂]_m;

20 L⁶ is C₃-C₈ cycloalkyl, cycloC₃₋₈haloalkyl, or heterocyclyl, wherein the cycloalkyl, cycloC₃₋₈haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R¹⁴;

R⁵ is aryl, heterocyclyl, or heteroaryl, wherein R⁵ is optionally substituted with one or more R^{5a}, wherein

25 each R^{5a} is independently halogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, nitro, heterocyclyloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is -[C(R¹⁵)₂]_m- or -C₃-C₈ cycloalkyl -;

30 C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl.

In another embodiment, the invention provides the compound according to formulas Ia and Id, wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m-$;

L^6 is C_3-C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1-C_6 alkoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$ or $-C_3-C_8$ cycloalkyl-;

C' is $-H$, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl; and

J is aryl or heteroaryl; and

K is aryl or heteroaryl.

In another embodiment, the invention provides the compound according to formulas Ia and Id, wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m-$;

L^6 is C_3-C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$

cycloalkyl)-C₂-C₆ alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is -[C(R¹⁵)₂]_m- or -C₃-C₈ cycloalkyl-;

C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl;

J is aryl or heteroaryl;

K is aryl or heteroaryl;

R² is -L³-R⁷, wherein

L³ is a bond; and

R⁷ is hydrogen, -Z, or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m- or -C₂-C₆ alkenyl;

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, or -S(=O)₂N(R¹¹)₂; and

R²¹ is hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl; such compounds are referred to hereafter and compounds of formula XL.

In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl.

In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl; and

R⁵ is aryl or heteroaryl, wherein R⁵ is optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl; and

R⁵ is phenyl optionally substituted with one or more R^{5a}, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂

In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl;

R⁵ is phenyl optionally substituted with one or more R^{5a} wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂; and

each R^4 is independently halogen, aryl, heteroaryl, heterocyclyl, -M, or -E-M, wherein

E is $-[C(R^{15})_2]_{m^-}$, wherein

each R^{15} is independently hydrogen or halogen; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, halogen, $-OR^{11}$, or $-SO_2R^{11}$.

5 In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl; and

R^5 is phenyl optionally substituted with one or more R^{5a} wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$

10 In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl;

R^5 is phenyl optionally substituted with one or more R^{5a} wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; and

15 each R^{41} is independently halogen, $-M''$, or $-E''-M''$, wherein

E'' is $-[C(R^{15'})_2]_{m^-}$,

wherein each $R^{15'}$ is independently hydrogen or halogen; and

M'' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, or halogen.

20 In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl; and

R^5 is phenyl optionally substituted with one or more R^{5a} wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

25 In another embodiment, the invention provides the compound according to formula XL, wherein J and K are both phenyl;

R^5 is phenyl optionally substituted with one or more R^{5a} wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; and

R^7 is hydrogen, -Z, or -Y-Z, wherein

30 Y is $-[C(R^{15'})_2]_{m'}$ or $-C_2-C_6$ alkenyl, wherein

m' is 0, 1, or 2; and

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, -CN, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$;

and R²¹ is hydrogen.

In another embodiment, the invention provides the compound according to formula XL, wherein J is heteroaryl and K is phenyl.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl; and

R⁵ is aryl or heteroaryl,

wherein R⁵ is optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl; and

R⁵ is phenyl optionally substituted with one or more R^{5a}, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl; and

R⁵ is phenyl optionally substituted with one or more R^{5a}, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂; and

each R⁴ is independently halogen, aryl, heteroaryl, heterocyclyl, -M, or -E-M, wherein

E is -[C(R^{15'})₂]_m-, wherein

each R^{15'} is independently hydrogen or halogen; and

M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, halogen, -OR¹¹, or -SO₂R¹¹.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl; and

R⁵ is phenyl optionally substituted with one or more R^{5a}, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂; and

each R⁴¹ is independently halogen, -M'', or -E''-M'', wherein

E'' is -[C(R^{15'})₂]_m-,

wherein each R^{15'} is independently hydrogen or halogen; and

M'' is -C₁-C₆alkyl, -C₁-C₆haloalkyl, or halogen.

In another embodiment, the invention provides the compound according to formula XL, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl, and K is phenyl.; and

R^5 is phenyl optionally substituted with one or more R^{5a} , wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; and

R^7 is hydrogen, -Z, or -Y-Z, wherein

Y is $-[C(R^{15})_2]_{m'}$ or $-C_2-C_6$ alkenyl, wherein

m' is 0, 1, or 2; and

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$;

and R^{21} is hydrogen.

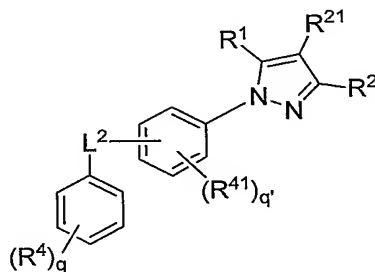
In an embodiment of the first aspect, the invention provides the compound according to formulas Ia-d, wherein J is phenyl.

In other embodiments, the invention provides a compound according to formula Ia, Ib, Ic, or Id.

In another embodiment, the invention provides the compound according to any one of formulas Ia-d, wherein K is phenyl or pyridyl.

In another embodiment, the invention provides the compound according to any one of formulas Ia-d, wherein J and K are phenyl.

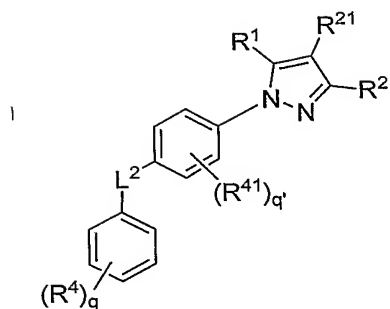
In another embodiment, the invention provides the compound according to formula II,



(II),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

In another embodiment, the invention provides the compound according to formula III



(III)

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

5 In another embodiment, the invention provides the compound according to formula III wherein L^2 is a bond; such compounds are referred to hereafter as compounds of formula IV.

In another embodiment, the invention provides the compound according to formula IV, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} .

10 In another embodiment, the invention provides the compound according to formula IV, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} ; and each R^{5a} is independently -halogen, - C_1 - C_6 alkyl, - C_1 - C_6 haloalkyl, - OR^{11} , - COR^{11} , - $C\equiv N$, - $C(O)OR^{11}$, - $CON(R^{11})_2$, or - $N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula IV, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} ; and each R^{41} is independently hydrogen, halogen, - C_1 - C_6 alkyl, or - C_1 - C_6 haloalkyl.

15 In another embodiment, the invention provides the compound according to formula IV, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} ; and R^2 is - L^3 - R^7 , wherein

L^3 is a bond or - $C(R^{11''})_2$; and

R^7 is hydrogen, halogen, - C_1 - C_6 alkyl, - C_1 - C_6 haloalkyl, - $OR^{11''}$, - $C(=O)R^{11''}$, - $C(=O)OR^{11''}$, - $C(=O)N(R^{11''})_2$, - $N(R^{11''})_2$, - CN , - $SO_2R^{11''}$, or - $S(=O)_2N(R^{11''})_2$,

20 wherein each $R^{11''}$ is independently -H or - C_1 - C_6 alkyl.

In another embodiment, the invention provides the compound according to formula IV, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} ; and each R^4 is independently halogen, - C_1 - C_6 alkyl, - C_1 - C_6 haloalkyl, - $COR^{11'}$, - $COOR^{11'}$, - $CON(R^{11'})_2$, - $C\equiv N$, - $OR^{11'}$, - $N(R^{11'})_2$, - $SO_2R^{11'}$, or - $SO_2N(R^{11'})_2$, wherein each $R^{11'}$ is independently -hydrogen, - C_1 - C_6 alkyl, or - C_1 - C_6 haloalkyl.

25 In another embodiment, the invention provides the compound according to formula III wherein L^1 is a bond and R^5 is phenyl optionally substituted with one or more R^{5a}

In another embodiment, the invention provides the compound according to formula IV, wherein L^1 is a bond and R^5 is phenyl optionally substituted with one or more R^{5a} ; such compounds are referred to hereafter as compounds of formula V.

In another embodiment, the invention provides the compound according to formula V, wherein
 5 each R^{5a} is independently halogen $-C'$, or $-B'-C'$, wherein

B' is $-[C(R^{15'})_2]_m-$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

C' is $-H$, $-halogen$, $-SO_2R^{11}$, $-OR^{11}$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

10 In another embodiment, the invention provides the compound according to formula V, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; such compounds are referred to hereafter as compounds of formula Va.

In another embodiment, the invention provides the compound according to formula V, wherein
 15 each R^{41} is independently hydrogen, halogen, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-COR^{16}$, $-COOR^{16}$, $-CON(R^{16})_2$, $-C\equiv N$, $-OR^{16}$, $-N(R^{16})_2$, wherein each R^{16} is independently hydrogen, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$.

In another embodiment, the invention provides the compound according to formula V, wherein
 each R^{41} is independently hydrogen, halogen, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$; such compounds are referred to hereafter as compounds of formula Vb.

20 In another embodiment, the invention provides the compound according to formula V, wherein
 each R^4 is independently halogen, nitro, C_1-C_6alkyl , $C_1-C_6haloalkyl$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-N_3$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$.

In another embodiment, the invention provides the compound according to formula V, wherein
 25 each R^4 is independently halogen, nitro, C_1-C_6alkyl , $C_1-C_6haloalkyl$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-N(R^{11})_2$, $-SO_2R^{11}$, or $-SO_2N(R^{11})_2$; such compounds are referred to hereafter as compounds of formula Vc.

In another embodiment, the invention provides the compound according to formula V, wherein
 R^2 is $-L^3-R^7$, wherein

30 L^3 is a bond; and R^7 is hydrogen, halogen, nitro, cyano, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m-$;

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, or -OC(=O)-N(R¹¹)₂.

In another embodiment, the invention provides the compound according to formula V, wherein

5 R² is -L³-R⁷, wherein

L³ is a bond; and R⁷ is hydrogen, halogen, -Z, or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m-, wherein

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, or -S(=O)₂N(R¹¹)₂;

10 such compounds are referred to hereafter as compounds of formula Vd.

In another embodiment, the invention provides the compound according to formula Va, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl; such compounds are referred to hereafter as compounds of formula Ve.

15 In another embodiment, the invention provides the compound according to formula Vb, wherein each R⁴ is independently halogen, nitro, C₁-C₆alkyl, C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -N(R¹¹)₂, -SO₂R¹¹, or -SO₂N(R¹¹)₂; such compounds are referred to hereafter as compounds of formula Vf.

In another embodiment, the invention provides the compound according to formula Vc, wherein R² is -L³-R⁷, wherein

20 L³ is a bond; and R⁷ is hydrogen, halogen, -Z, or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m-, wherein

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, or -S(=O)₂N(R¹¹)₂;

such compounds are referred to hereafter as compounds of formula Vg.

25 In another embodiment, the invention provides the compound according to formula Vd, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂; such compounds are referred to hereafter as compounds of formula Vh.

30 In another embodiment, the invention provides the compound according to formula Ve, wherein each R⁴ is independently halogen, nitro, C₁-C₆alkyl, C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -N(R¹¹)₂, -SO₂R¹¹, or -SO₂N(R¹¹)₂; such compounds are referred to hereafter as compounds of formula Vi.

In another embodiment, the invention provides the compound according to formula Vf, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and R^7 is hydrogen, halogen, -Z, or -Y-Z, wherein

Y is $-[C(R^{15})_2]_m-$, wherein

5 Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, -CN, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula Vg, wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

10 In another embodiment, the invention provides the compound according to formula Vh, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula Vi, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and R^7 is hydrogen, halogen, -Z, or -Y-Z, wherein

15 Y is $-[C(R^{15})_2]_m-$, wherein

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, -CN, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula V, wherein R^{21} is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, -Z, -Y-Z, or -X-Y-Z, wherein

X is -O-;

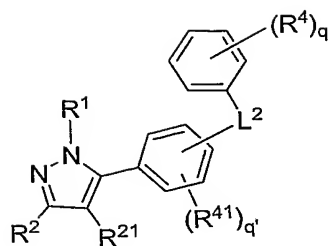
Y is $-[C(R^{15})_2]_m-$, $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

25 Z is -H, -CN, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, -CN, $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$.

In another embodiment, the invention provides the compound according to formula V, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to any of formulas Va-Vi, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

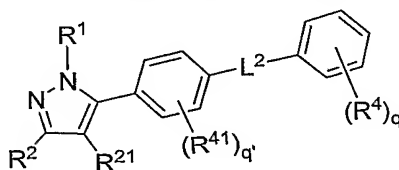
30 In another embodiment, the invention provides the compound according to formula VI



(VI),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

5 In another embodiment, the invention provides the compound according to formula VII



(VII),

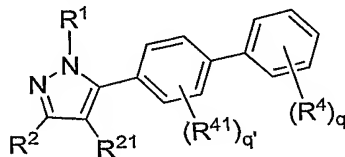
wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

10 In another embodiment, the invention provides the compound according to formula VII, wherein L^2 is a bond or $-[C(R^{15})_2]_{m''}-V^2-[C(R^{15})_2]_n-$, wherein m'' is 0; n is 0-3; and V^2 is $-O-$, $-S-$, $-OC(=O)-$, $-OC(=O)O-$, or $-OC(=O)N(R^{10})-$; such compounds are referred to hereafter as compounds of formula VIII.

In another embodiment, the invention provides the compound according to formula VIII wherein L^2 is a bond; such compounds are referred to hereafter as compounds of formula IX.

15 In another embodiment, the invention provides the compound according to formula IX, wherein L^1 is a bond; and R^5 is aryl or heteroaryl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula X



(X)

20 wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

In another embodiment, the invention provides the compound according to formula X, wherein R^5 is phenyl optionally substituted with one or more R^{5a} ; such compounds are referred to hereafter as compounds of formula XI.

In another embodiment, the invention provides the compound according to formula XI wherein each R^{5a} is independently halogen, $-C'$, or $-B'-C'$, wherein

B' is $-[C(R^{15'})_2]_m-$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

5 C' is $-H$, $-halogen$, $-SO_2R^{11}$, $-OR^{11}$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XI, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; such compounds are referred to hereafter as compounds of formula XIa.

10 In another embodiment, the invention provides the compound according to formula XI wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-COR^{16}$, $-COOR^{16}$, $-CON(R^{16})_2$, $-C\equiv N$, $-OR^{16}$, $-N(R^{16})_2$, wherein each R^{16} is independently hydrogen, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$.

In another embodiment, the invention provides the compound according to formula XI wherein 15 each R^{41} is independently hydrogen, halogen, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$; such compounds are referred to hereafter as compounds of formula XIb.

In another embodiment, the invention provides the compound according to formula XI wherein each R^4 is independently halogen, $-M$, or $-E-M$, wherein

E is $-[C(R^{15'})_2]_m-$;

20 M is C_1-C_6alkyl , $C_1-C_6haloalkyl$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-N_3$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$.

In another embodiment, the invention provides the compound according to formula XI wherein each R^4 is independently halogen, $-M$, or $-E-M$, wherein

25 E is $-[C(R^{15'})_2]_m-$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

M is $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$,

30 wherein each $R^{11'}$ is optionally substituted with $-OR^{13}$, $-COOR^{13}$, $-COR^{13}$, $-SO_2R^{13}$, $-CON(R^{13})_2$, $-SO_2N(R^{13})_2$, or $-N(R^{13})_2$;

such compounds are referred to hereafter as compounds of formula XIc.

In another embodiment, the invention provides the compound according to formula XI wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond, $-C(R^{11})_2$ -, $-O$ -, $-S$ -, $-NR^7$ -, $-N(R^{10})CO$ -, $-CO$ -, $-CS$ -, $-CONR^{11}$ -, $-CO_2$ -, $-OC(=O)$ -, or $-SO_2$ -, and

5 R^7 is hydrogen, halogen, heterocyclyl, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m$;

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, or $-OC(=O)-N(R^{11})_2$.

10 In another embodiment, the invention provides the compound according to formula XI, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond, $-C(R^{11'})_2$ -, $-CO$ -, or $-SO_2$ -, and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11'}$, $-C(=O)R^{11'}$, $-C(=O)OR^{11'}$, $-C(=O)N(R^{11'})_2$, $-N(R^{11'})_2$, $-CN$, $-SO_2R^{11'}$, or $-S(=O)_2N(R^{11'})_2$,

15 wherein each $R^{11'}$ is independently $-H$ or $-C_1-C_6$ alkyl; such compounds are referred to hereafter as compounds of formula XIId.

In another embodiment, the invention provides the compound according to formula XIa, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl; such compounds are referred to hereafter as compounds of formula XIe.

20 In another embodiment, the invention provides the compound according to formula XIb, wherein each R^4 is independently halogen, $-M$, or $-E-M$, wherein

E is $-[C(R^{15'})_2]_m$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

25 M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl,

wherein each $R^{11'}$ is optionally substituted with $-OR^{13}$, $-COOR^{13}$, $-COR^{13}$, $-SO_2R^{13}$, $-CON(R^{13})_2$, $-SO_2N(R^{13})_2$, or $-N(R^{13})_2$;

30 such compounds are referred to hereafter as compounds of formula XIIf.

In another embodiment, the invention provides the compound according to formula XIc, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond, $-C(R^{11'})_2$ -, $-CO$ -, or $-SO_2$ -, and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,
wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl;

such compounds are referred to hereafter as compounds of formula XIg.

5 In another embodiment, the invention provides the compound according to formula XIh, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$; such compounds are referred to hereafter as compounds of formula XIh.

10 In another embodiment, the invention provides the compound according to formula XIe, wherein each R^4 is independently halogen, $-M$, or $-E-M$, wherein

E is $-[C(R^{15'})_2]_m$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

15 each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl,
wherein each $R^{11'}$ is optionally substituted with $-OR^{13}$, $-COOR^{13}$, $-COR^{13}$, $-SO_2R^{13}$, $-CON(R^{13})_2$, $-SO_2N(R^{13})_2$, or $-N(R^{13})_2$;

such compounds are referred to hereafter as compounds of formula XIi.

20 In another embodiment, the invention provides the compound according to formula XIIf, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond, $-C(R^{11''})_2$, $-CO$, or $-SO_2$; and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,
wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

25 In another embodiment, the invention provides the compound according to formula XIg, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XIh, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

30 In another embodiment, the invention provides the compound according to formula XIi, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond, $-C(R^{11''})_2$, $-CO$, or $-SO_2$; and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,
wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XI, wherein R^{21} is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, $-Z$, $-Y-Z$, or $-X-Y-Z$, wherein

X is $-O-$;

5 Y is $-[C(R^{15})_2]_m-$, $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

Z is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$.

10 In another embodiment, the invention provides the compound according to formula XI, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to any of formulas XIa-XIi, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

15 In another embodiment, the invention provides the compound according to formula IX, wherein L^1 is a bond; and R^5 is pyridyl optionally substituted with one or more R^{5a} , such compounds are referred to hereafter as compounds of formula XII.

In another embodiment, the invention provides the compound according to formula XII, wherein each R^{5a} is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

20 In another embodiment, the invention provides the compound according to formula XII, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2-$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

25 wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XII, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

30 In another embodiment, the invention provides the compound according to formula XII, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula VIII, wherein

L^2 is $-V^2-[C(R^{15})_2]_n$, wherein

n is 0-3; and V^2 is $-O-$, $-S-$, $-OC(=O)-$, $-OC(=O)O-$, or $-OC(=O)N(R^{10})-$,

such compounds are referred to hereafter as compounds of formula XIII.

In another embodiment, the invention provides the compound according to formula XIII,
 5 wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$,
 $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XIII,
 wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XIII,
 10 wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11'})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11'}$, $-C(=O)R^{11'}$,
 $-C(=O)OR^{11'}$, $-C(=O)N(R^{11'})_2$, $-N(R^{11'})_2$, $-CN$, $-SO_2R^{11'}$, or $-S(=O)_2N(R^{11'})_2$,

wherein each $R^{11'}$ is independently -H or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XIII,
 15 wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$,
 $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XIII,
 wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

20 In another embodiment, the invention provides the compound according to formulas Ia-d,
 wherein K is absent; q is 1; and L^2 is $-V^2-[C(R^{15})_2]_n$, wherein

n is 0-6; and V^2 is $-O-$, $-S-$, $-SO_2-$, $-CON(R^{10})-$, $-CON(R^{11})-$, $-CO-$, $-CO_2-$, $-OC(=O)-$,
 $-OC(=O)O-$, or $-OC(=O)N(R^{10})-$;

such compounds are referred to hereafter as compounds of formula XIV.

25 In another embodiment, the invention provides the compound according to formula
 XIV, wherein L^2 is $-CO-$; and R^4 is heterocyclyl optionally substituted with one or more
 groups which independently are -M wherein

M is -H, halogen, COR^{11} , $COOR^{11}$, $C\equiv N$, OR^{11} , $-NR^{11}COR^{11}$, $NR^{11}SO_2R^{11}$, SO_2R^{11} ,
 $SO_2N(R^{11})_2$, or SR^{11} ;

30 such compounds are referred to hereafter as compounds of formula XV.

In another embodiment, the invention provides the compound according to formula XV,
 wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$,
 $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XV, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

5 wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XV, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XV, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

10 In another embodiment, the invention provides the compound according to formula XIV, wherein L^2 is $-O-$; and R^4 is $-E-M$, wherein

E is $-[C(R^{15})_2]_m-$; and

M is $-H$, halogen, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-N(R^{11})_2$;

15 such compounds are referred to hereafter as compounds of formula XVI.

In another embodiment, the invention provides the compound according to formula XVI, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XVI, wherein each R^{5a} is independently $-halogen$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

20 In another embodiment, the invention provides the compound according to formula XVI, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

25 wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XVI, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula XIV, wherein

30 L^2 is $-V^2-[C(R^{15})_2]_n-$, wherein

n is 0-6; and V^2 is $-CON(R^{11})-$ or $-CO_2-$; and

R^4 is heterocyclyl, or $-E-M$, wherein

E is $-[C(R^{15})_2]_m-$; and

M is -H, halogen, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂, -OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SO₂R¹¹, -SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹;

such compounds are referred to hereafter as compounds of formula XVII.

5 In another embodiment, the invention provides the compound according to formula XVII, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XVII, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

10 In another embodiment, the invention provides the compound according to formula XVII, wherein R² is -L³-R⁷, wherein L³ is a bond or -C(R^{11''})₂-; and

R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl;

15 In another embodiment, the invention provides the compound according to formula XVII, wherein R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is heteroaryl.

20 In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl; and K is phenyl.

25 In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is pyridyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is pyridyl; L¹ is a bond; and R⁵ is phenyl optionally substituted with one or more R^{5a}.

30 In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is pyridyl; L¹ is a bond; R⁵ is phenyl optionally substituted with one or more R^{5a}; and K is phenyl; such compounds are referred to hereafter as compounds of formula XVIII.

In another embodiment, the invention provides the compound according to formula XVIII, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XVIII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

5 wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XVIII, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

10 In another embodiment, the invention provides the compound according to formula XVIII, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

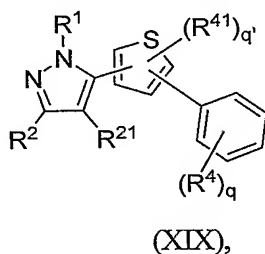
In another embodiment, the invention provides the compound according to formula XVIII, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

15 In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is thienyl, furyl, or pyrrolyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is thienyl.

20 In another embodiment, the invention provides the compound according to formulas Ia-d, wherein J is thienyl; K is phenyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula XIX,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

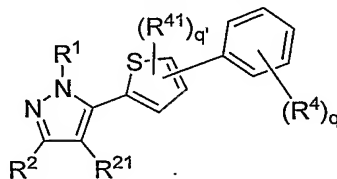
25 In another embodiment, the invention provides the compound according to formula XIX, wherein K is absent; and L^2 is $-SO_2-$ or $-CO-$.

In another embodiment, the invention provides the compound according to formula XIX, wherein K is absent; L^2 is $-SO_2-$ or $-CO-$; and R^4 is heterocyclyl, OR^{11} , or $-N(R^{11})_2$.

wherein the heterocyclyl is optionally substituted with one or more $-E'-M'$, wherein E' is $-[C(R^{15})_2]_m-$ or C_3-C_8 cycloalkyl;

M' is $-H$, halogen, COR^{11} , $COOR^{11}$, $C\equiv N$, OR^{11} , $-NR^{11}COR^{11}$, $NR^{11}SO_2R^{11}$, SO_2R^{11} , $SO_2N(R^{11})_2$, or SR^{11} .

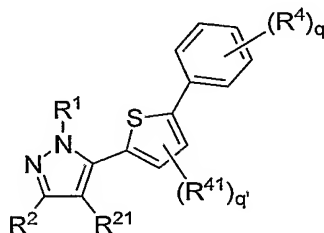
5 In another embodiment, the invention provides the compound according to formula XX,



(XX)

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

10 In another embodiment, the invention provides the compound according to formula XXI,



(XXI),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

15 In another embodiment, the invention provides the compound according to formula XXI, wherein L^1 is a bond; and R^5 is phenyl optionally substituted with one or more R^{5a} , such compounds are referred to hereafter as compounds of formula XXII.

In another embodiment, the invention provides the compound according to formula XXII, wherein each R^{5a} is independently halogen, nitro, heterocycloxy, aryloxy, $-C'$, $-B'-C'$ or $-A'-B'-C'$
20 wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$;

C' is $-H$, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$,
25 $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl;

wherein each R^{5a} is optionally substituted one or more groups which are independently C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, halogen, $-C\equiv N$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-SO_2R^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, or $-N(R^{11})_2$.

5 In another embodiment, the invention provides the compound according to formula XXII, wherein each R^{5a} is independently halogen, nitro, heterocycloxy, phenoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$;

C' is $-H$, halogen, $-OR^{18}$, $-COR^{18}$, $-C\equiv N$, $-C(O)OR^{18}$, $-OC(=O)R^{18}$, $-CON(R^{18})_2$, $-OCON(R^{18})_2$,
10 $-NR^{18}COR^{18}$, $-NR^{18}CON(R^{18})_2$, $-NR^{18}COOR^{18}$, $-N(R^{18})_2$, or heterocyclyl;

wherein each R^{18} is independently $-H$, $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-C_3$ - C_8 cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

wherein each R^{5a} is optionally substituted one or more groups which are independently C_1 - C_6 alkyl, halogen, $-COR^{19}$, $-COOR^{19}$, $-CON(R^{19})_2$, $-OR^{19}$, or $-N(R^{19})_2$,

15 wherein each R^{19} is independently $-H$ or $-C_1$ - C_6 alkyl;
such compounds are referred to hereafter as compounds of formula XXIIa.

In another embodiment, the invention provides the compound according to formula XXII, wherein each R^{41} is independently hydrogen, halogen, $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-COR^{16}$, $-COOR^{16}$, $-CON(R^{16})_2$, $-C\equiv N$, $-OR^{16}$, or $-N(R^{16})_2$, wherein each R^{16} is independently hydrogen, $-C_1$ - C_6 alkyl, or
20 $-C_1$ - C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula XXII, wherein each R^{41} is independently hydrogen, halogen, $-C_1$ - C_6 alkyl, or $-C_1$ - C_6 haloalkyl; such compounds are referred to hereafter as compounds of formula XXIIb.

In another embodiment, the invention provides the compound according to formula XXII, wherein each R^4 is independently halogen, nitro, $CR^{11}=CR^{11}COOR^{11}$, $-M$, or $-E-M$, wherein
25

E is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

M is C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$.

30 In another embodiment, the invention provides the compound according to formula XXII, wherein each R^4 is independently halogen, $CR^{11'}=CR^{11'}COOR^{11'}$, $-M$, or $-E-M$, wherein

E is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

M is C₁-C₆alkyl, C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -NR^{11'}O₂R^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, -SO₂NR^{11'}COR^{11'}, or -SO₂N(R^{11'})₂,

wherein each R^{11'} is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl,

wherein any of R^{11'} is optionally substituted with one or more radicals of R^{12'};

each R^{12'} is independently halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, C=O(OR¹³), COR¹³, SO₂R¹³, CON(R¹³)₂, SO₂N(R¹³)₂, or -N(R¹³)₂;

such compounds are referred to hereafter as compounds of formula XXIIc.

In another embodiment, the invention provides the compound according to formula XXII, wherein R² is -L³-R⁷, wherein

L³ is a bond or -(CH₂)_{m''}-V¹-(CH₂)_n- wherein

m'' is 0-3; n is 0-3; and V¹ is -C(R¹¹)₂-, -O-, -S-, -NR⁷-, -CO-, -CO₂-, -OC(=O)-, or -SO₂-; and

R⁷ is hydrogen, halogen, nitro, aryl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or -(C(R¹⁵)₂)_m-Z, wherein

Z is -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, or -OC(=O)-N(R¹¹)₂,

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl,

-OR²⁰, -C(=O)R²⁰, -C(=O)OR²⁰, -C(=O)N(R²⁰)₂, -N(R²⁰)₂, -N(R²⁰)C(=O)R²⁰, or -CN, wherein each R²⁰ is independently -H or C₁-C₆alkyl.

In another embodiment, the invention provides the compound according to formula XXII, wherein R² is -L³-R⁷, wherein

L³ is a bond or -(CH₂)_{m''}-V¹-(CH₂)_n- wherein

m'' is 0-1; n is 0-2; and V¹ is -CH₂-, -O-, -S-, or -NR⁷-; and

R⁷ is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or -(C(R¹⁵)₂)_m-Z, wherein

Z is -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, or -SO₂R^{11''},

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -OR^{11'}, -N(R^{11''})₂, -COOR^{11''},

wherein each R^{11''} is independently -H, -C₁-C₆alkyl, -C₁-C₆haloalkyl, heterocyclyl, or heteroaryl;

such compounds are referred to hereafter as compounds of formula XXIIId.

In another embodiment, the invention provides the compound according to formula XXII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and

R^7 is hydrogen, halogen, $-C_1-C_3$ alkyl, $-C_1-C_3$ haloalkyl, or $-(C(R^{15})_2)-Z$, wherein

Z is $-OR^{11''}$ or $-SO_2R^{11''}$, wherein $R^{11''}$ is $-H$ or C_1-C_6 alkyl.

5 In another embodiment, the invention provides the compound according to formula XXIIa, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl; such compounds are referred to hereafter as compounds of formula XXIIe.

In another embodiment, the invention provides the compound according to formula XXIIb, wherein each R^4 is independently halogen, $CR^{11'}=CR^{11'}COOR^{11'}$, $-M$, or $-E-M$, wherein

10 E is $-[C(R^{15})_2]_m-$ or C_3-C_8 cycloalkyl;

M is C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-NR^{11'}$, $SO_2R^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, $-SO_2NR^{11'}COR^{11'}$, or $-SO_2N(R^{11'})_2$,

wherein each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl,

wherein each $R^{11'}$ is optionally substituted with one or more radicals of $R^{12'}$;

15 each $R^{12'}$ is independently halogen, C_1-C_6 haloalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, $C=O(OR^{13})$, COR^{13} , SO_2R^{13} , $CON(R^{13})_2$, or $-N(R^{13})_2$;

such compounds are referred to hereafter as compounds of formula XXIIIf.

In another embodiment, the invention provides the compound according to formula XXIIc, wherein R^2 is $-L^3-R^7$, wherein

20 L^3 is a bond or $-(CH_2)_{m''}-V^1-(CH_2)_n-$ wherein

m'' is 0-1; n is 0-2; and V^1 is $-CH_2-$, $-O-$, $-S-$, or $-NR^7-$; and

R^7 is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-C_2-C_6$ alkenyl, C_3-C_8 cycloalkyl, or $-(C(R^{15})_2)_m-Z$, wherein

Z is $-OR^{11'}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, or $-SO_2R^{11''}$,

25 wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-OR^{11''}$, $-N(R^{11''})_2$, $-COOR^{11''}$,

wherein $R^{11''}$ is $-H$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, heterocyclyl, or heteroaryl;

such compounds are referred to hereafter as compounds of formula XXIIg.

In another embodiment, the invention provides the compound according to formula XXIIId, wherein
30 each R^{5a} is independently halogen, nitro, heterocyclyloxy, phenoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$;

C' is -H, halogen, -OR¹⁸, -COR¹⁸, -C≡N, -C(O)OR¹⁸, -OC(=O)R¹⁸, -CON(R¹⁸)₂, -OCON(R¹⁸)₂, -NR¹⁸COR¹⁸, -NR¹⁸CON(R¹⁸)₂, -NR¹⁸COOR¹⁸, -N(R¹⁸)₂, or heterocyclyl;

wherein each R¹⁸ is independently -H, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

5 wherein each R^{5a} is optionally substituted one or more groups which are independently C₁-C₆ alkyl, halogen, -COR¹⁹, -COOR¹⁹, -CON(R¹⁹)₂, -OR¹⁹, or -N(R¹⁹)₂,

wherein R¹⁹ is -H or -C₁-C₆alkyl;

such compounds are referred to hereafter as compounds of formula XXIIIh.

10 In another embodiment, the invention provides the compound according to formula XXIIe, wherein each R⁴ is independently halogen, CR^{11'}=CR^{11'}COOR¹¹, -M' or -E-M, wherein

E is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

M is C₁-C₆alkyl, C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -NR^{11'}O₂R^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, -SO₂NR^{11'}COR^{11'}, or -SO₂N(R^{11'})₂,

wherein each R^{11'} is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl,

15 wherein any of R^{11'} is optionally substituted with one or more radicals of R^{12'}; each R^{12'} is independently halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, C=O(OR¹³), COR¹³, SO₂R¹³, CON(R¹³)₂, SO₂N(R¹³)₂, or -N(R¹³)₂;

such compounds are referred to hereafter as compounds of formula XXIIIi.

20 In another embodiment, the invention provides the compound according to formula XXIIIf, wherein R² is -L³-R⁷, wherein L³ is a bond or -(CH₂)_{m'}-V¹-(CH₂)_n- wherein

m' is 0-1; n is 0-2; and V¹ is -CH₂-, -O-, -S-, or -NR⁷-; and

R⁷ is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or -(C(R¹⁵)₂)_m-Z, wherein

Z is -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, or -SO₂R^{11''},

25 wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -OR^{11''}, -N(R^{11''})₂, -COOR^{11''},

wherein R^{11''} is -H, -C₁-C₆alkyl, -C₁-C₆haloalkyl, heterocyclyl, or heteroaryl.

In another embodiment, the invention provides the compound according to formula XXIIg, wherein each R^{5a} is independently halogen, nitro, heterocycliloxy, phenoxy, -C', -B'-C', or -A'-B'-C' wherein

30 A' is -O-;

B' is -[C(R¹⁵)₂]_m-;

C' is -H, halogen, -OR¹⁸, -COR¹⁸, -C≡N, -C(O)OR¹⁸, -OC(=O)R¹⁸, -CON(R¹⁸)₂, -OCON(R¹⁸)₂, -NR¹⁸COR¹⁸, -NR¹⁸CON(R¹⁸)₂, -NR¹⁸COOR¹⁸, -N(R¹⁸)₂, or heterocyclyl;

wherein each R^{18} is independently -H, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

wherein each R^{5a} is optionally substituted one or more groups which are independently C₁-C₆ alkyl, halogen, -COR¹⁹, -COOR¹⁹, -CON(R¹⁹)₂, -OR¹⁹, or -N(R¹⁹)₂, wherein R¹⁹ is -H or -C₁-C₆alkyl.

In another embodiment, the invention provides the compound according to formula XXIIIh, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIIIi, wherein R^2 is -L³-R⁷, wherein L³ is a bond or -(CH₂)_{m'}-V¹-(CH₂)_n- wherein

m' is 0-1; n is 0-2; and V¹ is -CH₂-, -O-, -S-, or -NR⁷-; and

R⁷ is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or -(C(R¹⁵)₂)_m-Z, wherein

Z is -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, or -SO₂R^{11''},

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -OR^{11''}, -N(R^{11''})₂, -COOR^{11''},

wherein R^{11''} is -H, -C₁-C₆alkyl, -C₁-C₆haloalkyl, heterocyclyl, or heteroaryl.

In another embodiment, the invention provides the compound according to formula XXII, wherein R²¹ is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -Z, -Y-Z, or -X-Y-Z, wherein

X is -O-;

Y is -[C(R¹⁵)₂]_{m'}-, -C₂-C₆ alkenyl, or C₃-C₈ cycloalkyl;

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹;

In another embodiment, the invention provides the compound according to formula XXII, wherein R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to any of formulas XXIIIa-XXIIIi, wherein R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XXI,

wherein

R¹ is -L¹-R⁵, wherein

L¹ is -L⁵- or -L⁶-, wherein

each L⁵ is -C(R¹⁵)₂-, wherein

each R^{15} is independently hydrogen, halogen, $(C_1-C_6)alkyl$, or $(C_1-C_6)haloalkyl$; and

L^6 is $-CS-$, $-CO-$, or $-SO_2-$; and

R^5 is aryl or heteroaryl optionally substituted with one or more R^{5a} .

5 In another embodiment, the invention provides the compound according to formula XXI,

wherein R^1 is $-L^1-R^5$, wherein

L^1 is $-L^5-$ or $-L^6-$, wherein

each L^5 is $-C(R^{15})_2-$, wherein

each R^{15} is independently hydrogen, halogen, $(C_1-C_6)alkyl$, or $(C_1-C_6)haloalkyl$; and

10

L^6 is $-CS-$, $-CO-$, or $-SO_2-$; and

R^5 is phenyl, thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} ; such compounds are referred to hereafter as compounds of formula XXIII.

15 In another embodiment, the invention provides the compound according to formula XXIII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2-$; and

R^7 is hydrogen, halogen, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6alkyl$.

20 In another embodiment, the invention provides the compound according to formula XXIII, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XXIII, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$.

25 In another embodiment, the invention provides the compound according to formula XXIII, wherein each R^4 is independently halogen $-C_1-C_6alkyl$, $-C_1-C_6haloalkyl$, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6alkyl$, or $-C_1-C_6haloalkyl$.

In another embodiment, the invention provides the compound according to formula XXIII, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6alkyl , or $C_1-C_6haloalkyl$.

30

In another embodiment, the invention provides the compound according to formula XXI, wherein L^1 is a bond; and R^5 is heteroaryl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula XXI, wherein L^1 is a bond; and R^5 is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula XXI, wherein L^1 is a bond; and R^5 is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, or isoxazoyl optionally substituted with one or more R^{5a} ;

such compounds are referred to hereafter as compounds of formula XXIV.

In another embodiment, the invention provides the compound according to formula XXIV, wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XXIV, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIV, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11'})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently -H or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XXIV, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIV, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula XXI, wherein L^1 is a bond; and R^5 is pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} such compounds are referred to hereafter as compounds of formula XXV.

In another embodiment, the invention provides the compound according to formula XXV, wherein each R^{5a} is -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XXV, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XXV, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-C_2-C_6$ alkenyl, C_3-C_8 cycloalkyl, or $-(C(R^{15})_2)_{m'}-Z$, wherein

m' is 0-1; and

Z is $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, or $-SO_2R^{11}$,

wherein R^{11} is $-H$ or C_1-C_6 alkyl.

In another embodiment, the invention provides the compound according to formula XXV, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XXV, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula XIX, wherein K is heteroaryl; and L^2 is a bond.

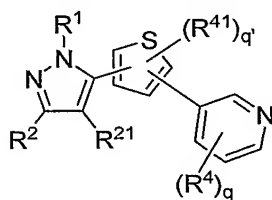
In another embodiment, the invention provides the compound according to formula XIX, wherein K is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula XIX, wherein K is pyridyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula XIX, wherein K is pyridyl; L^2 is a bond; L^1 is a bond; and

R^5 is phenyl optionally substituted with one or more R^{5a} .

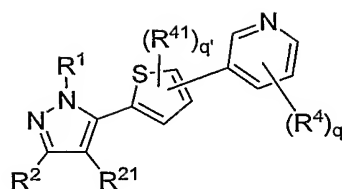
In another embodiment, the invention provides the compound according to formula XXVI,



(XXVI),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

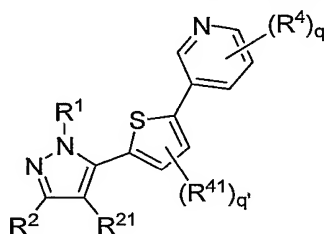
In another embodiment, the invention provides the compound according to formula XXVII,



(XXVII),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

5 In another embodiment, the invention provides the compound according to formula XXVIII,



(XXVIII),

or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^1 , R^2 , R^{21} , R^4 , R^{41} , L^2 , q , and q' are as defined in formulas Ia-d.

10 In another embodiment, the invention provides the compound according to formula XXVIII; wherein each R^{5a} is -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formula XXVIII, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

15 In another embodiment, the invention provides the compound according to formula XXVIII, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

In another embodiment, the invention provides the compound according to formula XXVIII, 20 wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond or $-C(R^{11''})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently -H or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to formula XXVIII, 25 wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is aryl or heteroaryl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, 5 oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl, pyridyl, or thienyl.

10 In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is pyridyl.

15 In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is thienyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is aryl or heteroaryl.

20 In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is phenyl or pyridyl.

25 In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is pyridyl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein K is phenyl.

30 In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is aryl or heteroaryl; and K is aryl or heteroaryl.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is aryl or heteroaryl; K is aryl or heteroaryl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein

J is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl;

K is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl; and

L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl; K is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl, pyridyl, or thienyl; K is phenyl or pyridyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl; K is phenyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is pyridyl; K is phenyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is thienyl; K is phenyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is phenyl; K is pyridyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is pyridyl; K is pyridyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein J is thienyl; K is pyridyl; and L^2 is a bond.

In another embodiment, the invention provides the compound according to formula Ia-d, wherein R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d, wherein R^5 is aryl or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d, wherein R^5 is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl wherein R^5 is optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^1 is a bond; and R^5 is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazoyl, oxazolyl, thiazoyl, isoxazolyl, isothiazoyl, triazolyl, triazinyl, tetrazoyl, or tetrazinyl, wherein R^5 is optionally substituted with one or more R^{5a} .

5 In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^1 is a bond; and R^5 is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl, wherein R^5 is optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^1 is a bond; and R^5 is phenyl optionally substituted with one or more R^{5a} .

10 In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^1 is a bond; and R^5 is pyridyl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d, wherein L^1 is a bond; and R^5 is thienyl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula Ia-d wherein
15 R^{21} is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, $-Z$, $-Y-Z$, or $-X-Y-Z$, wherein

X is $-O-$;

Y is $-[C(R^{15})_2]_m-$, $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

Z is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
20 $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$,
 $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$.

In another embodiment, the invention provides the compound according to formula Ia-d wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d
25 wherein R^3 is hydrogen, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, $-Z$, or $-Y-Z$ wherein

Y is $-[C(R^{15})_2]_m-$, $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

Z is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
30 $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$,
 $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$.

In another embodiment, the invention provides the compound according to formula Ia-d wherein R^3 is hydrogen, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and

R^7 is hydrogen, halogen, -Z, or -Y-Z, wherein

Y is $-[C(R^{15'})_2]_m$ - or C_2-C_6 alkenyl,

wherein each $R^{15'}$ is independently H, halogen, or (C_1-C_6) alkyl; and

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-C(=N-OH)R^{11}$, or

5 $-C(=S)N(R^{11})_2$.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and

R^7 is hydrogen, halogen, or $-[C(R^{15'})_2]-Z$, wherein

each $R^{15'}$ is independently H, halogen, or (C_1-C_2) alkyl; and

10 Z is -H, halogen, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-C(=N-OH)R^{11''}$, or $-C(=S)N(R^{11''})_2$,

wherein $R^{11''}$ is -H or $-(C_1-C_6)$ alkyl).

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein R^2 is -halogen, $-CF_3$, $-CH_2OH$, $-CH_2SO_2Me$, $-C(CH_3)_2OH$, or

15 $-C(CH_3)_2SO_2Me$.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein R^2 is -halogen, $-CF_3$, $-CH_2OH$, or $-C(CH_3)_2OH$.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein R^2 is $-CF_3$ or $-C(CH_3)_2OH$.

20 In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein

each R^4 is independently halogen, aryl, heteroaryl, heterocyclyl, -M, or -E-M, wherein

E is $-[C(R^{15'})_2]_m$, wherein

each $R^{15'}$ is independently hydrogen or halogen; and

25 M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, halogen, $-OR^{11}$, or $-SO_2R^{11}$.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein each R^4 is independently halogen, $-CH_2-$ M, $-C(H)(F)-$ M, $-CF_2-M$, wherein

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, -F, $-OR^{11'}$, or $-SO_2R^{11'}$

30 wherein $R^{11'}$ is -H or $-C_1-C_6$ alkyl.

In another embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein each R^4 is independently $-CH_3$, $-CF_3$, $-CF_2H$, $-CH_2F$, -OH, -OMe, $-CH_2OH$, or $-SO_2(C_1-C_3)$ alkyl).

In one embodiment, the invention provides the compound according to any of the formulas Ia-d, II-XXVIII, wherein each R^{41} is independently halogen, $-M''$, or $-E''-M''$, wherein

E'' is $-[C(R^{15})_2]_m-$,

wherein each R^{15} is independently hydrogen or halogen; and

M'' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, or halogen.

In another embodiment, the invention provides the compound according to formulas Ia-d, II-XXVIII, wherein each R^{41} is independently halogen, methyl or trifluoromethyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, II-IV, VI-IX, XIII, XIV-XVII, and XIX-XXI wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m-$;

L^6 is C_3-C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1-C_6 alkoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$ or $-C_3-C_8$ cycloalkyl -;

C' is $-H$, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, II-XXVIII, wherein R^{21} is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, $-Z$, $-Y-Z$, or $-X-Y-Z$, wherein

X is $-O-$;

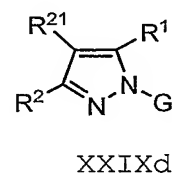
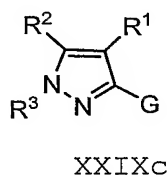
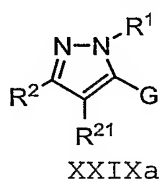
Y is $-[C(R^{15})_2]_m-$, $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹.

In another embodiment, the invention provides the compound according to formulas Ia-d, II-XXVIII, wherein R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formulas Ia-d, II-XXVIII, and XL wherein R²¹ is hydrogen.

In a second aspect, the invention provides intermediate compounds according to one of the formulas XXIXa-d,



wherein,

(A) R¹ is -L¹-R⁵, wherein

L¹ is a bond, L⁵, L⁶, -L⁵-L⁶-L⁵-, or -L⁶-L⁵-L⁶-, wherein

each L⁵ is independently -[C(R¹⁵)₂]_m-, wherein

each m is independently 0, 1, 2, 3, 4, 5 or 6; and

each R¹⁵ is independently hydrogen, halogen, (C₁-C₆)alkyl, or (C₁-C₆)haloalkyl;

each L⁶ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CS-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -CONR¹¹N(R¹¹)₂-, -CONR¹¹-, -OCONR¹¹-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, -C(=NR¹¹)-, -C(=NOR¹¹)-, -C(=NN(R¹¹)₂)-, aryl, C₃-C₈ cycloalkyl, cycloC₃₋₈haloalkyl, heteroaryl, or heterocyclyl, wherein the aryl, cycloalkyl, cyclohaloalkyl heteroaryl, or heterocyclyl are optionally substituted with one or more radicals of R¹⁴;

or L¹ is a C₂₋₆ alidiyl chain wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰)-, and

R⁵ is aryl, heterocyclyl, heteroaryl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, C₃-C₈ cycloalkyl-, -C-, -B-C, or -A-B-C, wherein

A is -O-;

B is $-\text{[C(R}^{15})_2]_{\text{m}}-$ or C₃-C₈ cycloalkyl;

C is C₁-C₆alkyl, C₁-C₆haloalkyl, SO₂R¹¹, SR¹¹, SO₂N(R¹¹)₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹, CON(R¹¹)₂, or N(R¹¹)₂;

5 wherein R⁵ is optionally substituted with one or more R^{5a},

wherein each R^{5a} is independently C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, halogen, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

10 A' is -O-;

B' is $-\text{[C(R}^{15})_2]_{\text{m}}-$ or - C₃-C₈ cycloalkyl -;

C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl;

15 wherein each R^{5a} is optionally substituted one or more groups which are independently C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, C₀-C₆ alkoxyaryl, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, aryl, aryl-C₁-C₆ alkyl-, heteroaryl, halogen, -NO₂, -C≡N, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -SO₂R¹¹, -OR¹¹, -SR¹¹, -SO₂R¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, or -N(R¹¹)₂;

R² and R²¹ are -L³-R⁷, wherein

each L³ is independently a bond -V¹-(CH₂)_n-V¹-, or -(CH₂)_m-V¹-(CH₂)_n- wherein

n is 0-6; and

25 each V¹ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -OCO-, -CO-, -CS-, -CONR¹⁰-, -C(=N)(R¹¹)-, -C(=N-OR¹¹)-, -C[=N-N(R¹¹)₂], -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, C₃-C₈ cycloalkyl, or C₃-C₈ cyclohaloalkyl;

30 or each L³ is independently a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰); and

each R^7 is independently hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, $-Z$, $-Y-Z$, or $-X-Y-Z$, wherein

X is $-O-$;

Y is $-[C(R^{15})_2]_m-$ $-C_2-C_6$ alkenyl, or C_3-C_8 cycloalkyl;

5 Z is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$;

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

10 R^{7a} is halogen, C_2-C_6 alkenyl, $-C_1-C_6$ alkyl-heterocyclyl, $-C_1-C_6$ alkyl-heteroaryl, $-C_1-C_6$ alkyl-aryl, C_0-C_6 alkoxyheteroaryl, C_0-C_6 alkoxyheterocyclyl, haloaryl, aryloxy, aralkyloxy, aryloxyalkyl, C_1-C_6 alkoxyaryl, aryl C_0-C_6 alkylcarboxy, $C(R^{11})=C(R^{11})-COOR^{11}$, C_0-C_6 alkoxyheteroaryl, C_0-C_6 alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, C_3-C_8 cycloalkyl, heteroaryloxy, $-Z'$, $-Y'-Z'$, or $-X'-Y'-Z'$, wherein

15 X' is $-O-$;

Y' is $-[C(R^{15})_2]_m-$ or C_3-C_8 cycloalkyl;

20 Z' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-SR^{11}$, $-S(=O)_2R^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N(R^{11})C(=O)R^{11}$, $-S(=O)_2N(R^{11})C(=O)R^{11}$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-OR^{11}$, $-N(R^{11})C(=O)O-R^{11}$, or $-N(R^{11})S(=O)_2R^{11}$;

wherein each R^{7a} is optionally substituted with one or more R^8 ,

wherein each R^8 is independently halogen, nitro, cyano, heteroaryl, C_1-C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkyl, C_1-C_6 haloalkyl(OR^{11}), C_0-C_6 alkyl OR^{11} , C_0-C_6 alkyl $CON(R^{11})_2$, C_0-C_6 alkyl COR^{11} , C_0-C_6 alkyl $COOR^{11}$, or C_0-C_6 alkyl SO_2R^{11} ; and wherein if two R^{7a} are present on the same carbon, then they may be taken together to form a cycloalkyl or heterocyclyl group; provided that R^2 and R^{21} are not simultaneously $-H$;

R^3 is $-L-R^6$, wherein

30 L is a bond, $-X^3-(CH_2)_n-X^3-$, $-(CH_2)_m-X^3-(CH_2)_n-$ or $-(CH_2)_{1+w}-Y^3-(CH_2)_w-$ wherein

n is 0-6; each w is independently 0-5; and

each X^3 is independently a bond, $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C\equiv C-$, $-CO-$, $-CS-$, $-CONR^{10}$, $-C(=N)(R^{11})-$, $-C(=N-OR^{11})-$, $-C[=N-N(R^{11})_2]$, $-CO_2-$, $-SO_2-$, or $-SO_2N(R^{10})-$; and

Y^3 is -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -OCO-, -OC(=O)N(R¹⁰)-,
-NR¹⁰CONR¹⁰-, -N(R¹⁰)SO₂-, or -NR¹⁰CSNR¹⁰-;

or L is a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-,
-C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-,
-N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or
-SO₂N(R¹⁰); and

R⁶ is C₁-C₆ alkyl, C₁-C₆ haloalkyl, aryl, C₃-C₈ cycloalkyl, heteroaryl, heterocyclcyl, -CN, -C(=O)R¹¹,
-C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, or
-C(=O)N(R¹¹)(OR¹¹), wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclcyl is optionally substituted with one or more R^{6a},
wherein

each R^{6a} is independently -Z'', -Y''-Z'', or -X''-Y''-Z'', wherein

X'' is -O-;

Y'' is -[C(R¹⁵)₂]_m-, C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, heterocyclcyl, aryl, or heteroaryl,
wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclcyl is optionally substituted with at
least one group which is each independently Z'';

Z'' is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -N₃,
-SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -N(R¹¹)C(=O)N(R¹¹)₂,
-OC(=O)-OR¹¹, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or
-N(R¹¹)COOR¹¹;

each R¹⁰ is independently -R¹¹, -C(=O)R¹¹, -CO₂R¹¹, or -SO₂R¹¹;

each R¹¹ is independently -hydrogen, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-,
(C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, -N(R¹²)₂, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, -(C₁-
C₆)alkyl-(C₃-C₈)cycloalkyl, aryl, -(C₁-C₆)alkyl-aryl, heteroaryl, -(C₁-C₆)alkyl-heteroaryl, heterocyclcyl,
or -(C₁-C₆)alkyl-heterocyclcyl,

wherein any of R¹¹ is optionally substituted with one or more radicals of R¹²;

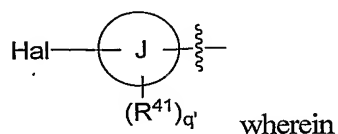
each R¹² is independently hydrogen, halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆
alkoxy, (C₀-C₆ alkyl)C=O(OR¹³); C₀-C₆ alkylOR¹³, C₀-C₆ alkylCOR¹³, C₀-C₆
alkylSO₂R¹³, C₀-C₆ alkylCN, C₀-C₆ alkylCON(R¹³)₂, C₀-C₆ alkylCONR¹³OR¹³, C₀-C₆
alkylSO₂N(R¹³)₂, C₀-C₆ alkylSR¹³, C₀-C₆ haloalkylOR¹³, aryloxy, aralkyloxy,
aryloxyalkyl, C₀-C₆alkoxyaryl, aryl C₀-C₆ alkylcarboxy, C₀-C₆ alkylNR¹³SO₂ R¹³,
-C₀-C₆ alkylN(R¹³)₂, or OC₀-C₆ alkylCOOR¹³;

each R¹³ is independently hydrogen, C1-C6 alkyl, C2-C6 alkenyl, C2-C6 alkynyl, (C3-C8 cycloalkyl)-C1-C6 alkyl-, (C3-C8 cycloalkenyl)-C1-C6 alkyl-, or (C3-C8 cycloalkyl)-C2-C6 alkenyl-;

each R¹⁴ is independently C₁-C₆ alkyl, C₁-C₆ alkoxy, halogen, C₁-C₆ haloalkyl, C₀-C₆ alkylCON(R¹¹)₂,

5 C₀-C₆ alkylCONR¹¹OR¹¹, C₀-C₆ alkylOR¹¹, or C₀-C₆ alkylCOOR¹¹;

G is a group of the formula,



J is aryl, heteroaryl, or absent;

10 Hal is halogen;

each R⁴¹ is independently halogen, nitro, C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -M'', -E''-M'', or -D''-E''-M'', wherein

D'' is -O-;

E'' is $-[C(R^{15})_2]_m-$ or C₃-C₈ cycloalkyl;

15 M^{''} is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂, -OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SO₂R¹¹, -SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹,

wherein each R⁴¹ is optionally substituted with one or more R^{4a},

wherein each R^{4a} is independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, -C₁-C₆ alkyl-aryl, C₁-C₆ alkoxyaryl, aryl C₀-C₆ alkylcarboxy, -M', -E'-M', or -D'-E'-M'

D' is -O-;

E' is $-[C(R^{15})_2]_m-$ or C₃-C₈ cycloalkyl;

M' is -C₁-C₆alkyl, -C₁-C₆haloalkyl, COR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹¹, -N(R¹¹)₂, COOR¹¹, C≡N, OR¹¹, -NR¹¹COR¹¹, NR¹¹SO₂R¹¹, SO₂R¹¹,

25 $\text{SO}_2\text{N}(\text{R}^{11})_2$, or SR^{11} ; and

q' is 0, 1, 2, 3, or 4, and

provided that,

(i) if the compound is defined by formula XXIXa, then

(a) R^1 is not 4-(NH₂SO₂)phenyl, 4-(CH₃SO₂)phenyl, or 4-(CH₂F SO₂)phenyl;

(b) if R^1 is 4-fluorophenyl, then G is not 4-[($H_2NS(=O)_2$)]phenyl-

(c) R² is not 4-hydroxyphenyl;

- (ii) if the compound is defined by formula XXIXb, then
- (a) R^2 is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl
 - (b) J is not pyridyl;
 - (c) R^1 is not 4-hydroxyphenyl;
- 5 (iii) if the compound is defined by formula XXIXc, then
- (a) R^2 is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl
 - (b) J is not pyridyl;
- (iv) if the compound is defined by formula XXIXd, then
- (a) if L^1 is a bond, then R^1 is not thienyl or 5-methylthienyl;
 - 10 (b) if G is 4-fluorophenyl, then R^1 is not 4-[($\text{H}_2\text{NS}(=\text{O})_2$)]phenyl-
 - (c) R^1 is not 4-Me-phenyl

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein Hal is -Cl, -Br, or -I.

In another embodiment, the invention provides the compound according to formula XXIXa-d
15 wherein R^{21} is hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -Z, -Y-Z, or -X-Y-Z, wherein

X is -O-;

Y is -[C(R^{15})₂]_m-, -C₂-C₆ alkenyl, or C₃-C₈ cycloalkyl; and

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN,
20 -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹),
-OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹;

In another embodiment, the invention provides the compound according to formula XXIXa-d wherein R^{21} is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d
25 wherein R^3 is hydrogen, aryl, heteroaryl, heterocyclyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -Z, or -Y-Z wherein

Y is -[C(R^{15})₂]_m-, -C₂-C₆ alkenyl, or C₃-C₈ cycloalkyl;

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN,
30 -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹),
-OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹;

In another embodiment, the invention provides the compound according to formula XXIXa-d wherein R^3 is hydrogen, C₁-C₆alkyl, or C₁-C₆haloalkyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is aryl or heteroaryl.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazolyl, oxazolyl, thiazolyl, isoxazolyl, isothiazolyl, triazolyl, triazinyl, tetrazolyl, or tetrazinyl.

5 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is phenyl, pyridyl, or thienyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is phenyl.

10 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is pyridyl.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein J is thienyl.

15 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein R⁵ is aryl, heterocyclyl, or heteroaryl, wherein R⁵ is optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein R⁵ is aryl or heteroaryl, wherein R⁵ is optionally substituted with one or more R^{5a}.

20 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein R⁵ is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazolyl, oxazolyl, thiazolyl, isoxazolyl, isothiazolyl, triazolyl, triazinyl, tetrazolyl, or tetrazinyl wherein R⁵ is optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L¹ is a bond.

25 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L¹ is a bond; and R⁵ is phenyl, pyridyl, thienyl, pyrrolyl, furanyl, pyrimidinyl, pyrazinyl, imidazolyl, pyrazolyl, oxazolyl, thiazolyl, isoxazolyl, isothiazolyl, triazolyl, triazinyl, tetrazolyl, or tetrazinyl, wherein R⁵ is optionally substituted with one or more R^{5a}.

30 In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L¹ is a bond; and R⁵ is phenyl, pyridyl, thienyl, pyrrolyl, or furanyl, wherein R⁵ is optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L¹ is a bond; and R⁵ is phenyl optionally substituted with one or more R^{5a}.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L^1 is a bond; and R^5 is pyridyl optionally substituted with one or more R^{5a} .

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein L^1 is a bond; and R^5 is thienyl optionally substituted with one or more R^{5a} .

5 In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein

R^2 is $-L^3-R^7$, wherein L^3 is a bond; and

R^7 is hydrogen, halogen, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15'})_2]_m-$ or C_2-C_6 alkenyl,

10 wherein each $R^{15'}$ is independently H, halogen, or (C_1-C_6) alkyl; and

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-C(=N-OH)R^{11}$, or $-C(=S)N(R^{11})_2$.

In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein

15 R^2 is $-L^3-R^7$, wherein L^3 is a bond; and

R^7 is hydrogen, halogen, or $-[C(R^{15'})_2]-Z$, wherein

each $R^{15'}$ is independently H, halogen, or (C_1-C_2) alkyl; and

Z is $-H$, halogen, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-C(=N-OH)R^{11''}$, or $-C(=S)N(R^{11''})_2$,

20 wherein $R^{11''}$ is $-H$ or $-(C_1-C_6)$ alkyl).

In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein R^2 is $-halogen$, $-CF_3$, $-CH_2OH$, $-CH_2SO_2Me$, $-C(CH_3)_2OH$, or $-C(CH_3)_2SO_2Me$.

In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein R^2 is $-halogen$, $-CF_3$, $-CH_2OH$, or $-C(CH_3)_2OH$.

25 In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein R^2 is $-CF_3$ or $-C(CH_3)_2OH$.

In one embodiment, the invention provides the compound according to formulas XXIXa-d, wherein each R^{41} is independently halogen, $-M''$, or $-E''-M''$, wherein

E'' is $-[C(R^{15'})_2]_m-$,

30 wherein each $R^{15'}$ is independently hydrogen or halogen; and

M'' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, or halogen.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein R^1 is L^1-R^5 , wherein L^1 is a bond; and

R^5 is phenyl or pyridyl, each optionally substituted with one or two R^{5a} , wherein

each R^{5a} is independently -halogen, -CH₃, or -CF₃;

R^2 is -H, -C(R²⁰)₂OH, -CH₃, -CF₃, or halogen, wherein

each R^{20} is independently -H, -F, -CH₃, or -CF₃;

J is phenyl, pyridyl, or thienyl; and

5 each R^{41} is -halogen, -CH₃, -CH₂CH₃, -CF₃, -CF₂CF₃, or -CH₂CF₃.

In another embodiment, the invention provides the compound according to formula XXIXa-d, wherein q' is 0 or 1; R^1 is L^1-R^5 , wherein L^1 is a bond;

R^5 is phenyl optionally substituted with one or two R^{5a} , wherein

each R^{5a} is independently -halogen, -CH₃, or -CF₃;

10 each R^2 is -H, -C(R²⁰)₂OH, -CH₃, -CF₃, or halogen, wherein

each R^{20} is independently -H, -F, -CH₃, or -CF₃; and

R^{41} is -halogen, -CH₃, -CH₂CH₃, -CF₃, -CF₂CF₃, or -CH₂CF₃.

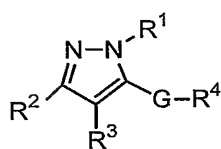
In another embodiment, the invention provides the compound according to formulas XXIXa-d, wherein each R^{41} is independently halogen, methyl or trifluoromethyl.

15 In another embodiment, the invention provides the compound according any of the previous embodiments wherein R^{21} is hydrogen. In the following embodiments of the first aspect, it is understood that the following provisos apply:

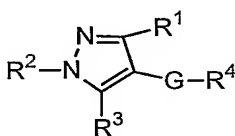
- (i) q may be 0 only if L^2 is not a bond or if K is not phenyl;
- (ii) the compound is not 2-methyl-5-(1-m-tolyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzenesulfonamide;
- (iii) if L^2 is a bond, then both J and K are not absent;
- (iv) if K is absent, then q is 1 and R^4 is bonded directly to L^2 ;
- (v) if L^2 is SO₂ or SO₂N(R¹⁰), then R^5 is substituted with at least one R^{5a} ;
- (vi) if the compound is defined by formula Ia, then
 - 25 a) R^1 is not 4-(NH₂SO₂)phenyl, 4-(CH₃SO₂)phenyl, or 4-(CH₂FSO₂)phenyl;
 - b) if R^1 is 4-fluorophenyl, then G is not 4-[(H₂NS(=O)₂]-phenyl-;
 - c) R^2 is not 4-hydroxyphenyl;
- (vii) if the compound is defined by formula Ib, then
 - 25 a) R^2 is not 4-(NH₂SO₂)phenyl, 4-(CH₃SO₂)phenyl, or 4-(CH₂FSO₂)phenyl;
 - 30 b) R^1 is not 4-hydroxyphenyl;
- (viii) if the compound is defined by formula Ic, then
 - a) R^2 is not 4-(NH₂SO₂)phenyl, 4-(CH₃SO₂)phenyl, or 4-(CH₂FSO₂)phenyl;
 - b) J is not pyridyl;

- c) G is not 3- or 4-methoxyphenyl
- (ix) if the compound is defined by formula Id, then
- a) if L^1 is a bond, then R^1 is not thienyl or 5-methylthienyl;
- b) G is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
- 5 c) if G is 4-fluorophenyl, then R^1 is not 4-[($\text{H}_2\text{NS}(=\text{O})_2$)]phenyl-;
- d) if $J = \text{Ph}$, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl, 3-fluorophenyl, 4-methoxyphenyl, or 5-chlorothieryl;
- e) if $J = \text{pyridyl}$, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl;
- 10 f) if $J = \text{Ph}$, L^2 is a bond, and q is 2, then K and both R^4 together are not 3-fluoro-4-methoxyphenyl;
- g) R^1 is not 4-Me-phenyl.

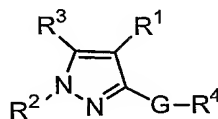
One embodiment of the invention relates to compounds represented by formulae Iaa, Ibb, Icc or Idd:



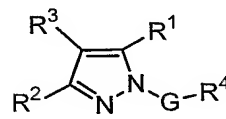
Iaa



Ibb



Icc



Idd

as an isomer, a mixture of stereoisomers, a racemic mixture thereof of stereoisomers, or as a tautomer; or as a pharmaceutically acceptable salt, prodrug, solvate or polymorph thereof, wherein each R^1 substituent is independently selected from the group consisting of R^5 and $-L_1-R^5$.

Another embodiment is that R^1 substituent is R^5 ; Preferred R^5 for this embodiment is selected from the group consisting of 5-12 membered aromatic or non-aromatic ring, 5-12 membered heterocyclyl or heteroaryl having one or more heteroatoms N, O or S; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} . R^5 is preferably thienyl, furanyl, piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiazolyl, indolyl, oxazolyl, isoxazolyl, pyridinyl, pyrimidinyl, imidazolyl and phenyl.

Examples of R^{5a} groups include halogen, C_{1-6} haloalkyl, nitro, C_{1-6} aliphatic group, C_{1-6} alkoxy, C_{0-6} alkylOR¹¹, NR¹¹COR¹¹, NR¹¹CON(R¹¹)₂, C_{0-6} alkylSO₂R¹¹, C_{0-6} alkylSR¹¹, C_{0-6} alkylSO₂N(R¹¹)₂, -, arylalkyl, aryloxyaryl, arylC₁₋₆ alkoxy, OC₁₋₆ alkylCOR¹¹, OC₁₋₆ alkylN(R¹¹)₂, C_{0-6} alkylN(R¹¹)₂, C_{0-6} alkylCOOR¹¹, C_{0-6} alkylCOON(R¹¹)₂, C_{0-6} alkylCON(R¹¹)₂; C_{0-6} alkylC≡N, OC₀₋₆ alkylCOOR¹¹, OC₁₋₆ alkylCON(R¹¹)₂, or C_{1-6} alkylOC₁₋₆ alkyl. R^{5a} is optionally substituted at substitutable position with C_{0-6} alkylSO₂R¹¹, C_{0-6} alkoxyaryl, 5-12 membered aromatic or non-aromatic ring, or 5-12 membered

heterocyclyl or heteroaryl having one or more heteroatoms N, O or S. Preferably, R^{5a} is Cl, Br, F, C₁₋₆ alkyl, C₁₋₆ haloalkyl, C₁₋₆ alkoxy, OC₀₋₆ alkylCOOR¹¹, OCON(R¹¹)₂, NHCOR¹¹, CON(R¹¹)₂, NO₂, OCON(R¹¹)₂, and OC₁₋₆ alkylCON(R¹¹)₂. Examples of R^{5a} include OCH₂C(CH₃)₃, Cl, F, Br, OCH₂CH(CH₃)₂, OCH₂CH₃, CF₃, COOH, OCH₃, OH, NO₂, OCOCH(CH₃)₂, OCOC(CH₃)₃,
 5 NHCOCCH₃, OCON(CH₃)₂, OCONHCH₃, OCON(CH₂)₂CH₃, OCONHCH(CH₃)₂, O(CH₂)₂, CONH₂, O(CH)(CH₃)₂, C₁₋₆ alkyl, OCH₂COOH, OCH₂COOC(CH₃)₃, O(CH₂)₂N(CH₂CH₃)₂, OC(CH₃)₂COOC(CH₃)₃, and OCH₂CH₂OH.

Another embodiment is that R¹ substituent is -L₁-R⁵. Preferred R⁵ for this embodiment is selected from the group consisting of 5-12 membered aromatic or non-aromatic ring, 5-12 membered
 10 heterocyclyl or heteroaryl having one or more heteroatoms N, O or S; R⁵ is optionally substituted at a substitutable position with one or more radicals of R^{5a}. Examples of preferred R⁵ include phenyl, pyridinyl, oxazolyl, thienyl, thiazolyl, morpholinyl, furanyl, imidazolyl, piperazinyl, pyrimidinyl, isoxazolyl or piperidinyl. More preferably, oxazolyl, pyridinyl, phenyl, furanyl, thienyl or thiazolyl. Most preferred R⁵ includes pyridinyl or pyridinyl.

Embodiments for L₁ include a direct bond, -CS-, -C₁₋₆alkoxy-, -carbonyl-, -SO₂-, -CON(R¹¹)-,
 -CONR¹¹OR¹¹-, -CONR¹¹N(R¹¹)-, -C(=NR¹¹)-, -C(=NOR¹¹)-, -C(=NN(R¹¹)₂)-, 5-12 membered
 aromatic or non-aromatic ring, 5-12 membered heteroaryl or heterocyclyl having one or more
 heteroatoms N, O, or S which is optionally substituted at a substitutable position with one or more
 radicals of R¹⁴. Another embodiment for L₁ is -(CH₂)_m-V-(CH₂)_n- or -V-(CH₂)_n-V; m is 0-6; n is 0-6; V
 20 is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-,
 -S-, -NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-,
 -CONR¹¹NR¹¹-, -CONR¹¹-, -OCONR¹¹-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-,
 -NR¹⁰CSNR¹⁰-, cycloC₃₋₈haloalkyl or cycloC₃₋₆ alkyl. A preferred L₁ is selected from the group
 consisting of -CS-, -CONH-, -C₁₋₆ aldiyl-, -CO-, -SO₂-, -CH₂-, -CH₂O-, -CH₂CH₂-, -C=O-, -CONH-,
 25 -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-, -OCH₂CH₂-, -OCH₂CO-, -OCH₂CH₂N(CH₃)₂-, and
 -CONHCH₂CH₂N(CH₃)₂-. More preferred L₁ is selected from the group consisting of -CH₂-, -CH₂O-,
 -CH₂CH₂-, -C=O-, -SO₂-, -CONH-, -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-,
 -CONHCH₂CH₂N(CH₃)₂-, -OCH₂- and -OCH₂CH₂-. Examples of preferred R⁵ are selected from the
 group consisting of phenyl, pyridinyl, oxazolyl, thienyl, thiazolyl, morpholinyl, imidazolyl, piperazinyl,
 30 pyrimidinyl, isoxazolyl and piperidinyl.

Examples of preferred R^{5a} include halogen, haloalkyl, OCH₂CON(CH₃)₂, OCH₂COOC(CH₃)₃,
 OCH₂CH₂N(CH₂CH₃)₂, OCH₂COOH, OC(CH₃)₂COOC(CH₃)₂, OCON(CH₃)₂, OCONHCH₃,
 OCH₂CH₂OH, OCONHCH₂CHCH₃, or NHCOCCH₃.

R⁵ is optionally substituted at a substitutable position with one or more radicals of R^{5a}.

L₁ is -(CH₂)_m-V-(CH₂)_n-; or -V-(CH₂)_n-V; m is 0-6; n is 0-6; V is independently -C(=NR¹¹)-, -C(=NOR¹¹)-, -C(=NN(R¹¹)₂)-, -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, C(R¹¹)₂N R¹¹-, -C≡C-, -O-, -S-, -NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -CONR¹¹NR¹¹-, -CONR¹¹-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)- or -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, cycloC₃₋₆ haloalkyl or cycloC₃₋₆ alkyl. Examples of preferred L₁ are selected from the group consisting of -CONH-, -C₁₋₆ alkyl-, -C₁₋₆ alkoxy-, -CO-, -SO₂-, -CH₂-, -CH₂O-, -CH₂CH₂-, -C=O-, -CONH-, -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-, -OCH₂CH₂-, -OCH₂CO-, -OCH₂CH₂N(CH₃)₂- and -CONHCH₂CH₂N(CH₃)₂-. More preferred L₁ is selected from the group consisting of -CH₂-, -CH₂O-, -CH₂CH₂-, -C=O-, -SO₂-, -CONH-, -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-, -CONHCH₂CH₂N(CH₃)₂-, and -OCH₂CH₂-.

Another embodiment is that R² is independently selected from the group consisting of R⁷ and L₃-R⁷; each R⁷ for this embodiment is independently selected from hydrogen, C₁₋₆ alkyl, halogen, C₁₋₆ haloalkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkyl(OR¹¹), C₀₋₆ alkylCOOR¹¹, C₀₋₆ alkylCON(R¹¹)₂, C₀₋₆ alkylN(R¹¹)₂, C₁₋₆ alkylOR¹¹, C₀₋₆ alkylSO₂N(R¹¹)₂, C₀₋₆ alkylC≡N, cycloC₃₋₆ alkylC≡N, C₀₋₆ alkylCONR¹¹N(R¹¹)₂, C₀₋₆ alkylCONR¹¹OR¹¹, C₀₋₆ alkylOCOR¹¹, cycloC₃₋₆ alkyl, cycloC₃₋₆ alkylOR¹¹; 5-12 membered aromatic or non-aromatic ring; or 5-12 membered heteroaryl and heterocyclyl having one or more heteroatoms N, O or S; R⁷ is optionally substituted at a substitutable position with one or more radicals of R^{7a};

Another embodiment is that R² is R⁷, each R⁷ for this embodiment is selected from the group consisting of 5-12 membered aromatic or non-aromatic ring; 5-12 membered heteroaryl and heterocyclyl having one or more heteroatoms N, O or S. R⁷ is optionally substituted at a substitutable position with one or more radicals of R^{7a};

Preferred R⁷ is phenyl, pyridinyl, thienyl, furanyl, piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, naphthyl, hydrogen, CF₃, C₀₋₆ alkylC≡N, CH₂OH, COOCH₃, COON(R¹¹)₂ or COOR¹¹. Other examples of R⁷ include trifluoromethyl, CH₂C≡N, C(CH₃)₂C≡N, COOCH₃, CH₂OH, CONHCH₂CH₃, CONHOCH₂CH(OH)CH₂OH, CONHCH₂CH₂N(CH₃)₂, CONHCH₂CH₂OCH₃, CONHCH₂CH₂OCH₃, CH₂COOCH₃, CON(CH₃)₂, COOCH(CH₃)₂, CONHCH₂CH₂CH₂OCH₃, OCOCH(CH₃)₂, OCH₂CON(CH₃)₂, CH₂CONHCH₂(CH₃), C(CH₃)₂OH, COOH, nitro, cycloC₃₋₆ alkyl, cycloC₃₋₆ alkylOR¹¹, cycloC₃₋₆ alkylamine, or COOCH(CH₃)₂. More preferably, R⁷ is CF₃, COOCH₃, COOH, or CONHCH₂CH₃. When R⁷ is phenyl or pyridinyl, preferred R^{7a} is selected from the group consisting of halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, and C₁₋₆ haloalkyl. Examples of R^{7a} is selected from the group consisting of halogen,

trifluoromethyl, C₁₋₆alkyl, C₁₋₆alkoxy, CH=CHCOOH, CH₂COOH, OCH₂COOH, OCONHCH(CH₃)₂, NHCOCH₃, OH, OCH₃, COOH, COOCH₃, OCH₂C(CH₃)₃, OCH₂CH(CH₃)₂, OCH(CH₃)₂OCOCH(CH₃)₂, OCONHCH₃, OCH₂CH₃, and OCH(CH₃)₂.

Another embodiment is that R² is L₃-R⁷. Each R⁷ for this embodiment is selected from the group consisting of 5-12 membered aromatic or non-aromatic ring; 5-12 membered heteroaryl and heterocyclyl having one or more heteroatoms N, O or S. R⁷ is optionally substituted at a substitutable position with one or more radicals of R^{7a};

A preferred L₃ for this embodiment is independently selected from a direct bond, -CS-, -CO-, -CONR¹¹-, -C(=NR¹¹)-, -C(≡NOR¹¹)-, -C(≡NN(R¹¹)₂)-, (CH₂)_m-V₁-(CH₂)_n, or -V₁-(CH₂)_n-V₁; m is 0-6; n is 0-6; V₁ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C≡C-, -O-, -S-, -NR¹¹-, -C(R¹¹)₂NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -OCO-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, cycloC₃₋₆ alkyl, cycloC₃₋₆ haloalkyl or -SO₂N(R¹⁰)-. More preferably, L₃ is -CH₂-, -CO-, -OCH₂-, -CH₂OCH₂-, -CONH-, -CH₂OCOCH₂-, -CH₂NHCH₂-, -CH₂NC(CH₃)₂-, -CH₂N(CH₃)CH₂-, -CH₂COCH₃-, -CH₂N(CH₃)₂CH₂-, cyclohexamine or cyclopropanamine.

Each R^{7a} is independently a halogen, C₁₋₆ alkyl, CR¹¹=CR¹¹COOH, C₁₋₆ alkoxy, C₀₋₆ alkylOR¹¹, C₀₋₆ alkyl OVCOOR¹¹, C₀₋₆ alkylNR¹¹COR¹¹, C₀₋₆ alkyl SO₂NR¹¹COR¹¹, C₀₋₆ alkylSO₂N(R¹¹)₂; C₀₋₆ alkylSR¹¹, (C₀₋₆ alkyl)C=O(OR¹¹), OVOR¹¹, C₁₋₆ haloalkyl, OC₁₋₆ haloalkyl, haloaryl, aryloxy, aralkyloxy, aryloxyalkyl, C₁₋₆ alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂ R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C₀₋₆ alkoxyheteroaryl, C₀₋₆alkoxyheterocyclyl, cycloC₃₋₆alkylCOOR¹¹, C₃₋₆cycloalkylamine; 5-12 membered aromatic or non-aromatic ring, or 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S; Examples of R^{7a} is selected from the group consisting of halogen, trifluoromethyl, C₁₋₆alkyl, C₁₋₆alkoxy, CH=CHCOOH, CH₂COOH, OCH₂COOH, OCONHCH(CH₃)₂, NHCOCH₃, OH, OCH₃, COOH, COOCH₃, OCH₂C(CH₃)₃, OCH₂CH(CH₃)₂, OCH(CH₃)₂OCOCH(CH₃)₂, OCONHCH₃, OCH₂CH₃, and OCH(CH₃)₂.

Each R^{7a} may be substituted at a substitutable position with one or more radicals of R⁸; each R⁸ is independently C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkyl, C₀₋₆ alkylOR¹¹, C₁₋₆ haloalkylOR¹¹, C₀₋₆ alkylCON(R¹¹)₂, C₀₋₆ alkylCOR¹¹, C₀₋₆ alkylCOOR¹¹, NR¹¹COOR¹¹, or C₀₋₆ alkylSO₂R¹¹.

Other examples of R⁷ include trifluoromethyl, CH₂C≡N, C(CH₃)₂C≡N, COOCH₃, CH₂OH, CONHCH₂CH₃, CONHOCH₂CH(OH)CH₂OH, CONHCH₂CH₂N(CH₃)₂, CONHCH₂CH₂OCH₃, CONHCH₂CH₂OCH₃, CH₂COOCH₃, CON(CH₃)₂, COOCH(CH₃)₂, CONHCH₂CH₂CH₂OCH₃, OCOCH(CH₃)₂, OCH₂CON(CH₃)₂, CH₂CONHCH₂(CH₃), C(CH₃)₂OH, COOH, nitro, cycloC₃₋₆ alkyl, cycloC₃₋₆ alkylOR¹¹ or COOCH(CH₃)₂. More preferably, R⁷ is CF₃, COOCH₃, COOH, or

CONHCH₂CH₃. When R⁷ is phenyl, pyridinyl, thienyl, furanyl, piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, naphthyl. Examples of R^{7a} is selected from the group consisting of halogen, trifluoromethyl, C₁₋₆alkyl, C₁₋₆alkoxy, CH=CHCOOH, CH₂COOH, OCH₂COOH, OCONHCH(CH₃)₂, NHCOCH₃, OH, OCH₃, COOH, COOCH₃, OCH₂C(CH₃)₃, OCH₂CH(CH₃)₂, OCH(CH₃)₂OCOCH(CH₃)₂, OCONHCH₃, OCH₂CH₃, and OCH(CH₃)₂. Preferred R^{7a} is selected from the group consisting of halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, and C₁₋₆ haloalkyl.

Each R³ is independently selected from the group consisting of R⁶ and -L-R⁶; Another embodiment is that R³ is R⁶ where R⁶ is independently hydrogen, halogen, C₁₋₆ alkyl, C₁₋₆ haloalkyl, C₁₋₆ haloalkylOR¹¹, C₀₋₆ alkylOR¹¹, C₀₋₆ alkylCON(R¹¹)₂, C₀₋₆ alkylCOR¹¹, OCON(R¹¹)₂, CONR¹¹OR¹¹, nitro, C₁₋₆ alkylCOOR¹¹; 5-12 membered aromatic or non-aromatic ring; 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S; Preferred R⁶ is hydrogen or optionally substituted phenyl. Each R⁶ is optionally substituted at a substitutable position with one or more radicals of R^{6a}.

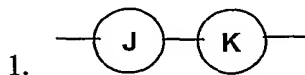
Each R^{6a} is independently halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkyl, C₁₋₆ haloalkylOR¹¹, CON(R¹¹)₂, CONR¹¹OR¹¹, C₀₋₆ alkylCOOR¹¹, CR¹¹=CR¹¹COOH, C₀₋₆ alkylOR¹¹, C₀₋₆ alkylCOR¹¹, C₀₋₆ alkylSO₂R¹¹, C₀₋₆ alkylOCOOR¹¹, C₀₋₆ alkylNR¹¹COR¹¹, C₀₋₆ alkyl SO₂NR¹¹COR¹¹, C₀₋₆ alkyl SO₂N(R¹¹)₂; C₀₋₆ alkylSR¹¹, (C₀₋₆ alkyl)C=O(OR¹¹), OVOR¹¹, OC₁₋₆ haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C₁₋₆ alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂ R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C₀₋₆ alkoxyheteroaryl, C₀₋₆alkoxyheterocyclyl, cycloalkylCOOR¹¹.

Another embodiment is that R³ is L-R⁶, L is independently selected from direct bond, -CO-, -CONR¹¹-, -C(=NR¹¹)-, -C(=NOR¹¹)-, -C(=NN(R¹¹)₂)-, C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -NR¹¹-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰)-; -(CH₂)_m-V₀-(CH₂)_n- or -V₀-(CH₂)_n-V₀; m is 0-6; n is 0-6; V₀ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -OR¹¹N-, -OR¹¹CO-, -NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -OCO-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, -SO₂N(R¹⁰)-, cycloC₃₋₆ haloalkyl or cycloC₃₋₆ alkyl; Examples of L include -O-, -CH₂-, -CH₂O-, -CH₂CH₂-, -C=O-, -SO₂-, -CONH-, -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-, -CONHCH₂CH₂N(CH₃)₂-, or -OCH₂CH₂-.

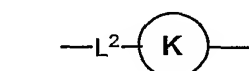
Each R⁴ is independently selected from, C₁₋₆ alkyl, CR¹¹=CR¹¹COOR¹¹, C₀₋₆ alkylC≡N, C₁₋₆ alkoxy, C₀₋₆ alkylOR¹¹, C₀₋₆ alkylCOR¹¹, C₀₋₆ alkylSO₂R¹¹, C₀₋₆ alkylOCOOR¹¹, C₀₋₆ alkylNR¹¹COR¹¹,

- C_{0-6} alkylSO₂NR¹¹COR¹¹, C_{0-6} alkyl SO₂N(R¹¹)₂, C_{0-6} alkylSR¹¹, (C_{0-6} alkyl)C=O(OR¹¹), OVOR¹¹, halogen, C_{1-6} haloalkyl, OC₁₋₆ haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C_{1-6} alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C_{0-6} alkoxyheteroaryl, C_{0-6} alkoxyheterocyclyl, cycloalkyl COOR¹¹, 5-12 membered aromatic ring or non-aromatic ring, or
- 5 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S. Preferred R⁴ is selected from the group consisting of OH, CN, C(CH₃)₂OH, SO₂CH₃, SO₂C(CH₃)₃, SO₂CH₂CH₃, SCH₂CH₃, SCH₃, OCH₃, C_{1-6} alkyl, CH₂COOH, C(CH₃)₂COOH, NHSO₂CH₃, F, Cl, Br, cyclobutane-COOH, OC(CH₃)₂COOH, CF₃, C(CH₃)₂COOH, CH₂COOCH₃, CH₂CH₂COOH, OCH₂COOCH₃, and COCH₃. More preferably, R⁴ is SO₂CH₃, SO₂CH₂CH₃, SCH₂CH₃, or SCH₃.
- 10 Each R⁴ is optionally substituted at a substitutable position with one or more radicals of R^{4a}; Each R^{4a} is independently selected from, C_{1-6} alkyl, (C_{1-6} alkyl)C=O(OR¹¹); C_{1-6} alkoxy, C_{0-6} alkylOR¹¹, C_{0-6} alkylCOR¹¹, C_{0-6} alkylSO₂R¹¹, C_{0-6} alkylSO₂N(R¹¹)₂, C_{0-6} alkylSR¹¹, (C_{0-6} alkyl)C=O(OR¹¹), halogen, C_{1-6} haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C_{1-6} alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, C_{0-6} alkylC≡N, or OC₀₋₆ alkylCOOR¹¹.
- 15 Each R¹⁰ is independently selected from R¹¹, C(=O)R¹¹, CO₂R¹¹, SO₂R¹¹; each R¹¹ is independently selected from hydrogen or substituted or unsubstituted C_{1-8} aliphatic group; C_{1-6} haloalkyl; N(R¹²)₂; 5-12 membered aromatic or non-aromatic ring, or 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms, N, S or O; which is optionally substituted at a substitutable position with one or more radicals of R¹².
- 20 Each R¹² is independently halogen, C_{1-6} haloalkyl, C_{1-6} alkyl, C_{1-6} alkoxy, (C_{1-6} alkyl)C=O(OR¹³); C_{1-6} alkoxyalkyl, C_{0-6} alkylCOR¹³, C_{0-6} alkylOR¹³, C_{0-6} alkylSO₂R¹³, C_{0-6} alkylCON(R¹³)₂, C_{0-6} alkylCONR¹³OR¹³, C_{0-6} alkylSO₂N(R¹³)₂, C_{0-6} alkylSR¹³, (C_{0-6} alkyl)C=O(OR¹³), C_{0-6} haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C_{0-6} alkoxyaryl, arylC₀₋₆ alkylcarboxy, C_{0-6} alkylNR¹³SO₂R¹³, OC₁₋₆ alkyl, or OC₀₋₆ alkylCOOR¹³.
- 25 Each R¹³ is independently hydrogen or substituted or unsubstituted C_{1-8} aliphatic group. Each R¹⁴ is independently C_{1-6} alkyl, C_{1-6} alkoxy, halogen, C_{1-6} haloalkyl, C_{0-6} alkylCON(R¹¹)₂, C_{0-6} alkylCONR¹¹OR¹¹, C_{0-6} alkylOR¹¹, or C_{0-6} alkylCOOR¹¹.

Another embodiment of the invention is that G is independently G1, G2 or G3;



4. G1



5. G2



6. G3

Each Ring J or Ring K may be independently absent, same or different and is independently selected from a 5-12 membered aromatic or non-aromatic ring, or 5-12 membered heterocyclyl or heteroaryl having one or more hetero atoms, N, S or O.

Each Ring J or Ring K independently is optionally substituted at a substitutable position with one or more radicals of R^4 . Ring J is preferably a phenyl ring or a 5-membered heteroaryl ring. Examples of Ring J include phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, biphenyl, naphthyl, piperidinyl, piperazinyl, or imidazolyl. A preferred Ring J is thienyl or phenyl. Ring J is optionally substituted at a substitutable position with one or more radicals of R^4 .

Suitable Ring J substituents designated as R^4 include, methylsulfonyl, or C_{1-6} aliphatic or substituents selected from the group consisting of $CR^{11}=CR^{11}COOR^{11}$, C_{1-6} alkyl, C_{1-6} alkoxy, C_{0-6} alkylOR¹¹, C_{1-6} alkylCOR¹¹, C_{0-6} alkylSO₂R¹¹, C_{0-6} alkylOCOOR¹¹, C_{0-6} alkylNR¹¹COR¹¹, C_{0-6} alkylSO₂NR¹¹COR¹¹, C_{0-6} alkyl SO₂N(R¹¹)₂, C_{0-6} alkylSR¹¹, $(C_{0-6}$ alkyl)C=O(OR¹¹), OVOR¹¹, halogen, C_{1-6} haloalkyl, OC₁₋₆ haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C_{1-6} alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C_{1-6} alkoxyheteroaryl, C_{0-6} alkoxyheterocyclyl, C_{0-6} alkylC≡N, cycloalkylCOOR¹¹, 5-12 membered aromatic ring or non-aromatic ring, and 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S. Examples of preferred R^4 include OH, CN, C(CH₃)₂OH, SO₂CH₃, SO₂NH₂, SO₂CH₂CH₃, SO₂C(CH₃)₃, SCH₂CH₃, SCH₃, OCH₃, C_{1-6} alkyl, CH₂COOH, C(CH₃)₂COOH, NHSO₂CH₃, F, Cl, Br, C(CH₂CH₃)₂COOH, CH₂COOCH₃, C(CH₃)₂COOCH₃, CH₂CH₂COOH, CH=CHCOOH, OCH₂COOCH₃, COCH₃, OCH₃, COOC(CH₃)₃, cyclobutane-COOH, OC(CH₃)₂COOH, CH₂CH₃, CH₃, CH(CH₃)₂, CH₂COOCH₃, OCON(CH₂CH₃)₂, NHCOCH₃, or CF₃.

Examples of Ring K include phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, biphenyl, naphthyl, piperidinyl, piperazinyl, isoxazolyl, pyrimidinyl, or imidazolyl. Ring K is optionally substituted at a substitutable position with one or more radicals of R^4 . Suitable Ring K substituents designated as R^4 include, methylsulfonyl, or C_{1-6} aliphatic or substituents selected from the group consisting of $CR^{11}=CR^{11}COOR^{11}$, C_{1-6} alkyl, C_{1-6} alkoxy, C_{0-6} alkylOR¹¹, C_{1-6} alkylCOR¹¹, C_{0-6} alkylSO₂R¹¹, C_{0-6} alkylOCOOR¹¹, C_{0-6} alkylNR¹¹COR¹¹, C_{0-6} alkyl SO₂NR¹¹COR¹¹, C_{0-6} alkyl SO₂N(R¹¹)₂, C_{0-6} alkylSR¹¹, $(C_{0-6}$ alkyl)C=O(OR¹¹), OVOR¹¹, C_{0-6} alkylC≡N, halogen, C_{1-6} haloalkyl, OC₁₋₆ haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C_{1-6} alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C_{0-6} alkoxyheteroaryl, C_{0-6} alkoxyheterocyclyl, cycloalkyl COOR¹¹, 5-12 membered aromatic ring or non-aromatic ring, and 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S. Preferably, Ring K is phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, biphenyl, naphthyl, piperidinyl, piperazinyl, isoxazolyl,

pyrimidinyl, or imidazolyl. When Ring K is a phenyl or pyridinyl, it is preferably substituted by methylsulfonyl. Examples of preferred R^4 groups include include OH, CN, $C(CH_3)_2OH$, SO_2CH_3 , SO_2NH_2 , $SO_2CH_2CH_3$, $SO_2C(CH_3)_3$, SCH_2CH_3 , SCH_3 , OCH_3 , C_{1-6} alkyl, CH_2COOH , $C(CH_3)_2COOH$, $NHSO_2CH_3$, F, Cl, Br, $C(CH_2CH_3)_2COOH$, CH_2COOCH_3 , $C(CH_3)_2COOCH_3$, CH_2CH_2COOH , $CH=CHCOOH$, OCH_2COOCH_3 , $COCH_3$, OCH_3 , $COOC(CH_3)_3$, cyclobutane- $COOH$, $OC(CH_3)_2COOH$, CH_2CH_3 , CH_3 , $CH(CH_3)_2$, CH_2COOCH_3 , $OCON(CH_2CH_3)_2$, $NHCOCH_3$, or CF_3 .

L_2 is $-(CH_2)_m-V^2-(CH_2)_n-$ or $-V^2-(CH_2)_m-V^2-$; m is 0-6; n is 0-6; V^2 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CON(R^{11})-$, $-CON(R^{11})O-$, $-CO-$, $-CO_2-$, $-OR^{11}N-$, $-OR^{11}COO-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-NR^{10}CONR^{10}-$, $-SO_2N(R^{10})-$, $-NR^{10}CSNR^{10}-$, cyclo C_{3-8} haloalkyl or cyclo C_{3-6} alkyl; C_{2-6} alidiyl chain wherein alidiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CON(R^{11})-$, $-CON(R^{11})O-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, or $-SO_2N(R^{10})-$; 5-12 membered aromatic or non-aromatic ring, or 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms, N, S or O which is optionally substituted at a substitutable position with one or more radicals of R^9 . Alternatively, L_2 is a direct bond, $-C_{1-6}$ alkyl-, $-C_{1-6}$ alkoxy-, $-C_{0-6}$ alkyl $COOR^{11}$ -, $-CH=CHCOO-$, $-C_{0-6}$ alkyl $CONR^{11}$ -, $-OC_{0-6}$ alkyl $COOR^{11}$ -, $-C_{0-6}$ alkyl SO_2R^{11} -, $-C_{0-6}$ alkyl SO_2- , $-C_{0-6}$ alkyl $N(R^{11})-$, $-C_{0-6}$ alkyl $O-$, $-OC_{0-6}$ alkyl $N(R^{11})-$, $-C_{0-6}$ alkyl $CO-$, $-C_{1-6}$ carboxyl-, cycloalkylamine-, $-C(=NR^{11})-$, $-C(=NOR^{11})-$, $-C(=NN(R^{11})_2)-$; 5-12 membered aromatic or non-aromatic ring, 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms, N, S or O which is optionally substituted at a substitutable position with one or more radicals of R^9 . A preferred L_2 is selected from the group consisting of $-CONH-$, $-CONHCH_2-$, $-CH_2O-$, $-OCH_2COOCH_2-$, $-CONHCH_2-$, and $-C\equiv C-$.

Another embodiment is that G is G1, R^1 is R^5 and R^2 is R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G1, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, isoxazolyl, pyrimidinyl, or imidazolyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^{5a} is halogen, trifluoromethyl, $OCONHCH(CH_3)_2$, $NHCOCH_3$, OH, OCH_3 , $COOH$, $COOCH_3$, $OCH_2C(CH_3)_3$, $OCH_2CH(CH_3)_2$, $OCH_2CH_2N(CH_3)_2$, $OCH(CH_3)_2OCOCH(CH_3)_2$, $OCONHCH_3$, OCH_2CH_3 , or $OCH(CH_3)_2$;

R^2 is trifluoromethyl, COOCH_3 , CH_2OH , $\text{CONHCH}_2\text{CH}_3$, $\text{CONHOCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OH}$, $\text{CONHCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$, $\text{CONHCH}_2\text{CH}_2\text{OCH}_3$, $\text{CONHCH}_2\text{CH}_2\text{OCH}_3$, $\text{CH}_2\text{COOCH}_3$, $\text{CON}(\text{CH}_3)_2$, $\text{COOCH}(\text{CH}_3)_2$, $\text{CONHCH}_2\text{CH}_2\text{CH}_2\text{OCH}_3$, $\text{OCOCH}(\text{CH}_3)_2$, $\text{OCH}_2\text{CON}(\text{CH}_3)_2$, $\text{CH}_2\text{CONHCH}_2(\text{CH}_3)$, $\text{C}(\text{CH}_3)_2\text{OH}$, COOH , nitro or $\text{COOCH}(\text{CH}_3)_2$;

R^3 is hydrogen or optionally substituted phenyl;

Ring J is thienyl, thiazolyl, furanyl, pyridinyl or phenyl;

Ring K is optionally substituted phenyl or pyridinyl; and

R^4 is SO_2CH_3 , $\text{SO}_2\text{C}(\text{CH}_3)_3$, CH_3 , SO_2NH_2 , $\text{SO}_2\text{CH}_2\text{CH}_3$, SCH_2CH_3 , SCH_3 , OCH_3 , CF_3 , OCF_3 , CH_2CF_3 , C_{1-6} alkyl, halogen or CH_2COOH .

Another embodiment is that G is G1, R^1 is R^5 and R^2 is R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G1, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazolyl, pyrimidinyl or phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^{5a} is halogen, trifluoromethyl, $\text{OCONH}(\text{CH}_2)_2\text{CH}_3$, $\text{OCONH}(\text{CH}_2\text{CH}_3)_2$, NHCOCH_3 , OH , OCH_3 , COOH , COOCH_3 , $\text{OCH}_2\text{C}(\text{CH}_3)_3$, $\text{OCH}_2\text{CH}(\text{CH}_3)_2$, $\text{OCH}(\text{CH}_3)_2\text{OCOCH}(\text{CH}_3)_2$, OCONHCH_3 , OCH_2CH_3 , or $\text{OCH}(\text{CH}_3)_2$;

R^2 is R^7 selected from $\text{CH}_2\text{C}\equiv\text{N}$, $\text{C}(\text{CH}_3)_2\text{C}\equiv\text{N}$, $\text{cycloC}_{3-6}\text{alkylC}\equiv\text{N}$, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazolyl, pyrimidinyl or phenyl; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} ;

R^{7a} is selected from the group consisting of halogen, trifluoromethyl, C_{1-6} alkyl, C_{1-6} alkoxy, $\text{CH}=\text{CHCOOH}$, CH_2COOH , OCH_2COOH , $\text{OCONHCH}(\text{CH}_3)_2$, NHCOCH_3 , OH , OCH_3 , COOH , COOCH_3 , $\text{OCH}_2\text{C}(\text{CH}_3)_3$, $\text{OCH}_2\text{CH}(\text{CH}_3)_2$, $\text{OCH}(\text{CH}_3)_2\text{OCOCH}(\text{CH}_3)_2$, OCONHCH_3 , OCH_2CH_3 , or $\text{OCH}(\text{CH}_3)_2$;

R^3 is hydrogen or optionally substituted phenyl;

Ring J is thienyl, thiazolyl, furanyl, pyridinyl, or phenyl;

Ring K is optionally substituted phenyl or pyridinyl; and

R^4 is $\text{CH}=\text{CHCOOH}$, SO_2CH_3 , SO_2NH_2 , $\text{SO}_2\text{CH}_2\text{CH}_3$, SCH_2CH_3 , $\text{SO}_2\text{C}(\text{CH}_3)_3$, SCH_3 , OCH_3 , C_{1-6} alkyl, CF_3 , F, Cl, or Br.

Another embodiment is that G is G1, R^1 is $\text{L}_1\text{-R}^5$ and R^2 is R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G1, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is L_1-R^5 ; R^5 is phenyl, pyridinyl, morpholinyl, oxazolyl, furanyl, thiazolyl or thienyl; R^5 is optionally substituted with R^{5a} ;

R^{5a} is halogen or trifluoromethyl;

L_1 is $-CS-$, CH_2 , CH_2O , CH_2CH_2 , $C=O$, SO_2 , $CONH$, $CONHC(CH_3)_2$, $CONH(CH_2)_3OCH_2$,
 5 OCH_2 , OCH_2CO , or OCH_2CH_2 ;

R^2 is trifluoromethyl, $CONHCH_2CH_2N(CH_3)_2$, $CONHCH_2CH_2CH_2N(CH_3)_2$, or
 $CONHCH_2CH_2CH_2OCH_3$.

R^3 is hydrogen or phenyl optionally substituted with R^{6a} ;

Ring J is thienyl, pyridinyl, thiazolyl or phenyl; Ring K is substituted phenyl or pyridinyl; and

10 R^4 is SO_2CH_3 , SO_2NH_2 , $SO_2CH_2CH_3$, SCH_2CH_3 , SCH_3 , OCH_3 , C_{1-6} alkyl, halogen or CH_2COOH .

Another embodiment is that G is G1, R^1 is R^5 and R^2 is L_3R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G1, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

15 R^1 is R^5 selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazolyl, pyrimidinyl and phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^{5a} is $OCH_2C(CH_3)_3$, Cl, F, Br, $OCH_2CH(CH_3)_2$, OCH_2CH_3 , CF_3 , $COOH$, OCH_3 , OH, NO_2 ,
 $OCOCH(CH_3)_2$, $NHCOCH_3$, $OCONHCH(CH_3)_2$, $O(CH_2)_2$, $CONH_2$, $O(CH)(CH_3)_2$, C_{1-6} alkyl,
 OCH_2COOH , $OCH_2COOC(CH_3)_3$, $O(CH_2)_2N(CH_2CH_3)_2$, $OCOC(CH_3)_3$, $OC(CH_2)_2COOH$,
 20 $OCONH(CH_3)_2$, $OCONCH_3$, $OCONHCH_2CH_2CH_3$, $OC(CH_3)_2COOC(CH_3)_3$, or $O(CH_2)_2OH$;

R^2 is L_3-R^7 ; R^7 is phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, piperidinyl,
 imidazolyl, piperazinyl, or pyridinyl;

L_3 is $-CS-$, $-CO-$, $-C_{1-6}$ alidiyl-, $-CONH-$, $-CONR^{11}-$, $-CONR^{11}NR^{11}-$, $-CH_2OCH_2-$,
 $-CH_2OCH_2CH_2-$, $-OCH_2-$, $-CH_2N(CH_3)_2-$, $-CH_2NHCH_2-$, $-CONR^{11}O-$, $-CH_2OCOCH_2-$,
 25 $-CH_3N(CH_3)(CH_2)-$, $-CH_2N(cyclopropane)CH_2-$, $-CH_2NC(CH_3)_2CH_2-$,
 $-CH_2N(cyclohexane)CH_2-$, $-CH_2NCH(CH_3)_2CH_2-$, $-CH_2N(CF_3)(CH_2)_2-$,
 $-CH_2N(CH_3)(CH_2)CH_2OCOCH_2CH_2-$, $-CONHCH_2CH_2N(CH_3)_2-$, or $-CH_2N(CH_2C\equiv N)CH_2-$;

R^{7a} is selected from the group consisting of halogen, C_{1-6} alkyl, C_{1-6} alkoxy, CF_3 , OCH_2CH_2COOH ,
 CH_2COOH , $COOCH_3$, CH_2OH and OCH_3 ;

30 R^3 is hydrogen or phenyl optionally substituted with R^{6a} ;

Ring J is thienyl, pyridinyl, thiazolyl, furanyl or phenyl;

Ring K is substituted phenyl or pyridinyl; and

R^4 is SO_2CH_3 , $\text{SO}_2\text{CH}_2\text{CH}_3$, SCH_2CH_3 , SCH_3 , SO_2NH_2 , OCH_3 , C_{1-6} alkyl, CH_2COOH , $\text{C}(\text{CH}_3)_2\text{COOH}$, NHSO_2CH_3 , F, Cl, Br, CF_3 or COCH_3 ;

Another embodiment is that G is G1, R^1 is $\text{L}_1\text{-R}^5$ and R^2 is $\text{L}_3\text{-R}^7$. When G of formulae Iaa, Ibb, Icc, or Idd is G1, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^5 is $\text{L}_1\text{-R}^5$; R^5 is selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, imidazolyl, piperazinyl, piperidinyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, imidazolyl and phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^{5a} is C_{1-6} alkyl, C_{1-6} alkoxy, COOH , halogen or trifluoromethyl;

L_1 is $-\text{CS}-$, $-\text{CH}_2-$, $-\text{CH}_2\text{O}-$, $-\text{CH}_2\text{CH}_2-$, $-\text{OCH}_2\text{CH}_2-$, $-\text{OCH}_2\text{CO}-$, $-\text{C}=\text{O}-$, $-\text{SO}_2-$, $-\text{CONH}-$, $-\text{CONHC}(\text{CH}_3)_2-$, $-\text{CONH}(\text{CH}_2)_3\text{OCH}_2-$, or $-\text{CONHCH}_2\text{CHN}(\text{CH}_3)_2-$;

R^2 is $\text{L}_3\text{-R}^7$; R^7 is selected from the group consisting of phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, imidazolyl, CF_3 , and COOCH_3 ; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} ;

L_3 is CH_2 , CH_2OCH_2 , $\text{NC}(\text{CH}_3)_2$, $\text{CH}_2\text{NH}(\text{CH}_2)_2$, CONH , CO , CONR^{11} , OCH_2 , $\text{CH}_2\text{N}(\text{CH}_3)_2\text{CH}_2$, $\text{CH}_2\text{OCOCH}_2$, $\text{CH}_2\text{CONHCH}_2$, $\text{CH}_2\text{CONHCH}_2\text{CH}_2$, cycloalkylamine, $\text{CH}_2\text{N}(\text{CH}_3)\text{CH}_2$, or $\text{CH}_2\text{NCH}(\text{CH}_3)_2\text{CH}_2$;

R^{7a} is selected from the group consisting of halogen, trifluoromethyl, C_{1-6} alkyl, C_{1-6} alkoxy, $\text{CH}=\text{CHCOOH}$, CH_2COOH , OCH_2COOH , $\text{OCONHCH}(\text{CH}_3)_2$, NHCOCH_3 , OH , OCH_3 , COOH , COOCH_3 , $\text{OCH}_2\text{C}(\text{CH}_3)_3$, $\text{OCH}_2\text{CH}(\text{CH}_3)_2$, $\text{OCH}(\text{CH}_3)_2\text{OCOCH}(\text{CH}_3)_2$, OCONHCH_3 , OCH_2CH_3 , $\text{CH}_2\text{N}(\text{CH}_2)\text{CH}_2\text{CF}_3$, and $\text{OCH}(\text{CH}_3)_2$;

R^3 is hydrogen or phenyl optionally substituted with R^{6a} ;

Ring J is thienyl, thiazolyl, furanyl, pyridinyl, or phenyl; Ring K is optionally substituted phenyl or pyridinyl; and

R^4 is SO_2CH_3 , $\text{SO}_2\text{CH}_2\text{CH}_3$, SCH_2CH_3 , SCH_3 , OCH_3 , C_{1-6} alkyl, CH_2COOH , $\text{C}(\text{CH}_3)_2\text{COOH}$, NHSO_2CH_3 , F, Cl, or Br.

Another embodiment is that G is G2 and R^1 is R^5 and R^2 is R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G2, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is R^5 selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, imidazolyl and phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^2 is R^7 selected from the group consisting of phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, imidazolyl, CF_3 , and $COOCH_3$; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} ;

R^3 is hydrogen or optionally substituted phenyl;

5 L_2 is selected from the group consisting of $-CONH-$, $-CONHCH_2-$, $-CH_2O-$, $-OCH_2COOCH_2-$, $-O-$, $C\equiv C-$, $-OCH_2CH_2-$, and $-CONHOCH_2CH(OH)CH_2O-$;

Ring J or K is substituted phenyl, biphenyl, pyridinyl, piperidinyl, piperazinyl, morpholinyl, thienyl, or naphthyl; and

10 R^4 is selected from the group consisting of SO_2CH_3 , $SO_2CH_2CH_3$, $SO_2CH_2CH_2CH_3$, SCH_2CH_3 , SCH_3 , OCH_3 , C_{1-6} alkyl, CH_2COOH , $C(CH_3)_2COOH$, $NHSO_2CH_3$, F , Cl , Br , $C(CH_3)_2COOH$, CH_2COOCH_3 , $C(CH_3)_2COOCH_3$, CH_2CH_2COOH , $OCH_2CON(R^{11})_2$, $OCH_2CH_2N(CH_3)_2$, OCH_2COOH , OCH_2COOCH_3 , CH_2OH , $COCH_3$, $COOC(CH_3)_3$, cyclobutane- $COOH$, $OC(CH_3)_2COOH$ and CF_3 .

Another embodiment is that G is G2, R^1 is L_1-R^5 and R^2 is R^7 . When G of formulae Iaa, Ibb, 15 Icc, or Idd is G2, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is L_1-R^5 ; R^5 is substituted phenyl or pyridinyl;

R^{5a} is halogen, trifluoromethyl, C_{1-6} alkyl, C_{1-6} haloalkyl, nitro, C_{1-6} alkoxy, or $OCON(C_{1-6} \text{ alkyl})_2$;

20 L_1 is $-CS-$, $-CH_2-$, $-CH_2O-$, $-CH_2CH_2-$, $-C=O-$, $-SO_2-$, $-CONH-$, $-CONHC(CH_3)_2-$, $-CONH(CH_2)_3OCH_2-$, $-CONHCH_2CH_2N(CH_3)_2-$, or $-OCH_2CH_2-$;

R^2 is R^7 is selected from the group consisting of phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, pyridinyl, CF_3 , or $COOCH_3$;

R^3 is hydrogen or phenyl optionally substituted with R^{6a} ;

Ring J or K is substituted phenyl, thienyl, furanyl, piperazinyl, piperidinyl or pyridinyl;

25 L_2 is $-CONH-$, $-CONHCH_2-$, $-CH_2O-$, $-OCH_2COOCH_2-$, $-O-$, $-C\equiv C-$, $-OCH_2CH_2-$, or $-CONHOCH_2CH(OH)CH_2O-$; and

R^4 is selected from the group consisting of halogen, C_{1-6} haloalkyl, C_{1-6} alkyl $COOR^{11}$, and methyl sulfonyl.

Another embodiment is that G is G2, R^1 is R^5 and R^2 is L_3R^7 . When G of formulae Iaa, Ibb, Icc, 30 or Idd is G2, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R^1 is R^5 selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazolyl, pyrimidinyl and phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

R^{5a} is halogen or trifluoromethyl;

5 R^2 is L_3-R^7 ; R^7 is selected from the group consisting of phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, pyridinyl, phenyl, imidazolyl, isoxazole, pyrimidinyl, CF_3 , cyclo C_{3-6} alkyl $C\equiv N$, C_{0-6} alkyl $C\equiv N$, and $COOCH_3$; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} ;

L_3 is $-CS-$, CH_2 , CH_2OCH_2 , $NCH_2(CH_2)_2$, $CH_2N(CH_2)_2$, CH_2CN , $CONH$, CO , or $CONHCH_2$;

10 R^3 is hydrogen or optionally substituted phenyl;

Ring J or K is substituted phenyl, pyridinyl, furanyl, biphenyl or naphthyl;

L_2 is $-CS-$, $CONH$, $CONHCH_2$, CH_2O , OCH_2COOCH_2 , OCH_2CH_2 , or OCH_2 ; and

15 R^4 is SO_2CH_3 , $SO_2CH_2CH_3$, SCH_2CH_3 , CH_2COOH , $C(CH_3)_2COOH$, $NHSO_2CH_3$, F , Cl , Br , SCH_3 , OCH_3 , C_{1-6} alkyl, $COOCH_2CO$, OCH_3 , CH_2COOH , CH_2COOCH_3 , $CH(CH_3)_2COOH$, $OC(CH_3)_2COOH$, $COOC(CH_3)_3$, cyclobutane- $COOH$, $C(CH_3)_2COOH$, OCH_2COOCH_3 , and CF_3 .

Another embodiment is that G is G3, R^1 is R^5 and R^2 is R^7 . When G of formulae Iaa, Ibb, Icc, or Idd is G3, a more preferred embodiment of this invention relates to a compound having one or more
20 features selected from the group consisting of:

R^1 is R^5 selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazole, pyrimidinyl and phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} ;

25 R^2 is R^7 selected from the group consisting of phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, pyridinyl, imidazolyl, isoxazole, pyrimidinyl, CF_3 , halogen, and $COOCH_3$; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} ;

R^3 is hydrogen or optionally substituted phenyl;

30 L_2 is selected from the group consisting of $-CS-$, $-CONH-$, $-CONHCH_2-$, $-CH_2O-$, $-OCH_2COOCH_2-$, $-COOCH_2-$, $-CO-$, $-OCH_2-$, $-OCO-$, $-NHCONH-$, $-O-$, $-OCH_2CH_2-$, $-OCONH-$, and $-SO_2-$;

Ring J or K is substituted phenyl, biphenyl, pyridinyl, piperidinyl, piperazinyl, morpholinyl, thienyl, furanyl, pyrimidinyl or naphthyl;

R⁴ is methylsulfonyl, halogen, haloalkyl, CH₂COOH, OCH₂-phenyl, CH₂COO-phenyl, OCH₂COOH, or OCH₂CHN(CH₃)₂; and

R^{5a} is OCH₂C(CH₃)₃, Cl, F, Br, OCH₂CH(CH₃)₂, OCH₂CH₃, CF₃, COOH, OCH₃, OH, NO₂, OCOCH(CH₃)₂, NHCOCH₃, OCONHCH(CH₃)₂, O(CH₂)₂, CONH₂, O(CH)(CH₃)₂, C₁₋₆ alkyl, OCH₂COOH, OCH₂COOC(CH₃)₃, O(CH₂)₂N(CH₂CH₃)₂, OCOC(CH₃)₃, OC(CH₂)₂COOH, OCONH(CH₃)₂, OCONCH₃, OCONHCH₂CH₂CH₃, OC(CH₃)₂COOC(CH₃)₃, and O(CH₂)₂OH.

Another embodiment is that G is G3, R¹ is L₁-R⁵ and R² is R⁷. When G of formulae Iaa, Ibb, Icc, or Idd is G3, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R¹ is L₁-R⁵; R⁵ is substituted phenyl or pyridinyl;

R^{5a} is halogen or trifluoromethyl;

L₁ is -CH₂-, -CH₂O-, -CH₂CH₂-, -C=O-, -SO₂-, -CS-, -CONH-, -CONHC(CH₃)₂-, -CONH(CH₂)₃OCH₂-, -CONHCH₂CH₂N(CH₃)₂-, or -OCH₂CH₂-;

R² is halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkylCOOR¹¹, or CF₃;

R³ is hydrogen or phenyl optionally substituted with R^{6a};

Ring J or K is phenyl, pyridinyl, thienyl, furanyl, piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiazolyl, indolyl, oxazolyl, isoxazolyl, pyrimidinyl, imidazolyl, or biphenyl;

L₂ is -CONH-, -CONHCH₂-, -CH₂O-, -OCH₂COOCH₂-, -OCH₂-, or -OCH₂CH₂-; and

R⁴ is selected from the group consisting of halogen, C₁₋₆ haloalkyl, C₁₋₆ alkylCOOR¹¹, and methyl sulfonyl.

Another embodiment is that G is G3, R¹ is R⁵ and R² is L₃R⁷. When G of formulae Iaa, Ibb, Icc, or Idd is G3, a more preferred embodiment of this invention relates to a compound having one or more features selected from the group consisting of:

R¹ is selected from the group consisting of thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, isoxazolyl, imidazolyl, pyrimidinyl and phenyl; R⁵ is optionally substituted at a substitutable position with one or more radicals of R^{5a};

R² is L₃-R⁷; R⁷ is phenyl, pyridinyl, thienyl, furanyl, morpholinyl, thiazolyl, oxazolyl, piperidinyl, imidazolyl, piperazinyl, pyridinyl, isoxazolyl, imidazolyl, pyrimidinyl, CF₃, and COOCH₃; R⁷ is optionally substituted at a substitutable position with one or more radicals of R^{7a};

L₃ is -CS-, -CO-, -C₁₋₆ aldiyl-, -CONH-, -CONR¹¹-, -CONR¹¹NR¹¹-, -CH₂OCH₂-, -CH₂OCH₂CH₂-, -OCH₂-, -CH₂N(CH₃)₂-, -CH₂NHCH₂-, -CONR¹¹O-, -CH₂OCOCH₂-, -CH₃N(CH₃)(CH₂)-, -CS-, -CH₂N(cyclopropane)CH₂-, -CH₂NC(CH₃)₂CH₂-,

-CH₂N(cyclohexane)CH₂-, -CH₂NCH(CH₃)₂CH₂-, -CH₂N(CF₃)(CH₂)₂-,
 -CH₂N(CH₃)(CH₂)CH₂OCOCH₂CH₂-, -CONHCH₂CH₂N(CH₃)₂-, or -CH₂N(CH₂C≡N)CH₂-;

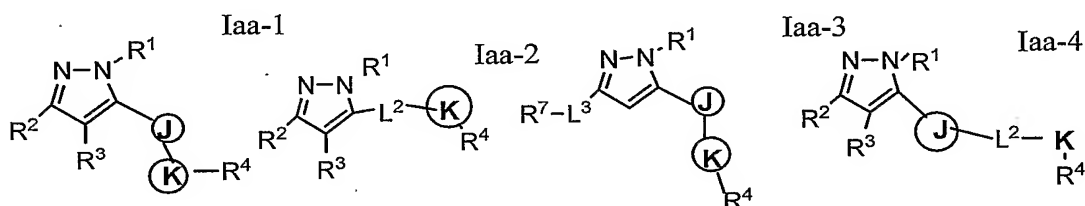
R³ is hydrogen or optionally substituted phenyl;

Ring J or K is substituted phenyl, furanyl, thienyl, pyridinyl, biphenyl or naphthyl;

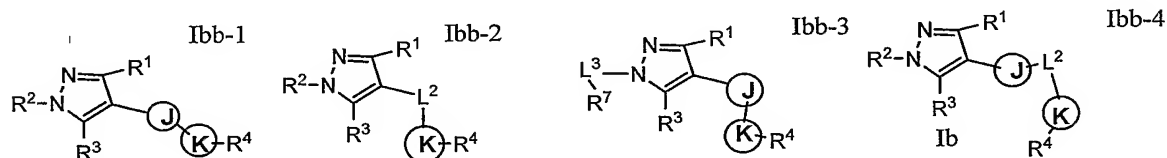
5 L₂ is -CONH-, -CONHCH₂-, -CH₂O-, -OCH₂COOCH₂-, or -CONHCH₂-; and

R⁴ is OH, CN, C(CH₃)₂OH, SO₂CH₃, SO₂CH₂CH₃, SCH₂CH₃, SCH₃, SO₂NH₂, OCH₃, C₁₋₆ alkyl,
 CH₂COOH, C(CH₃)₂COOH, NHSO₂CH₃, F, Cl, Br, CF₃ or COCH₃.

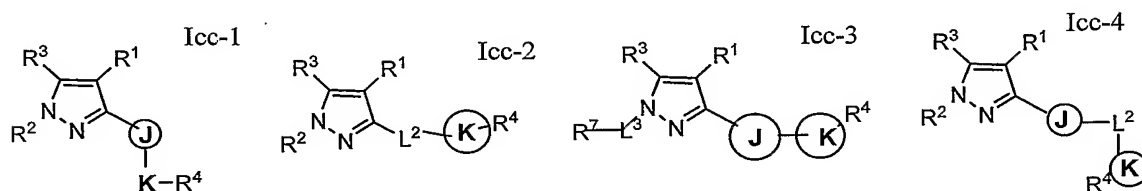
Another embodiment of this invention relates to compounds represented by formulae Iaa-1,
 Iaa-2, Iaa-3 or Iaa-4 (Embodiment Iaa):



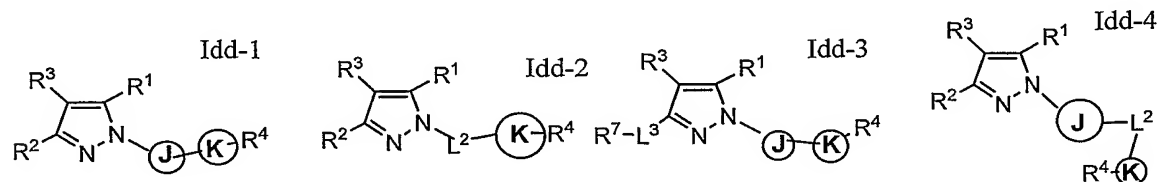
Another embodiment of this invention relates to compounds represented by formulae Ibb-1,
 Ibb-2, Ibb-3, or Ibb-4 (Embodiment Ibb):



Another embodiment of this invention relates to compounds represented by formulae Icc-1, Icc-
 2, Icc-3, or Icc-4 (Embodiment Icc):



Another embodiment of this invention relates to compounds represented by formulae Idd-1,
 Idd-2, Idd-3, or Idd-4 (Embodiment Idd):



Of the above embodiments 1a-1d, R¹ is R⁵ selected from the group consisting of thienyl,
 furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, isoxazolyl, pyrimidinyl, imidazolyl, and

phenyl; R^5 is optionally substituted at a substitutable position with one or more radicals of R^{5a} . Preferably, R^5 is phenyl or pyridinyl optionally substituted with R^{5a} .

R^2 is R^7 selected from the group consisting of trifluoromethyl, COOCH_3 , CH_2OH , $\text{CONHCH}_2\text{CH}_3$, $\text{CONHOCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OH}$, $\text{CONHCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$, $\text{CONHCH}_2\text{CH}_2\text{OCH}_3$,
 5 $\text{CONHCH}_2\text{CH}_2\text{OCH}_3$, $\text{CH}_2\text{COOCH}_3$, $\text{CON}(\text{CH}_3)_2$, $\text{COOCH}(\text{CH}_3)_2$, $\text{CONHCH}_2\text{CH}_2\text{CH}_2\text{OCH}_3$, $\text{OCOCH}(\text{CH}_3)_2$, $\text{OCH}_2\text{CON}(\text{CH}_3)_2$, $\text{CH}_2\text{CONHCH}_2(\text{CH}_3)$, $\text{C}(\text{CH}_3)_2\text{OH}$, COOH , nitro or $\text{COOCH}(\text{CH}_3)_2$, $\text{CH}_2\text{C}\equiv\text{N}$, $\text{C}(\text{CH}_3)_2\text{C}\equiv\text{N}$, cyclo C_{3-6} alkyl $\text{C}\equiv\text{N}$, thienyl, furanyl, morpholinyl, thiazolyl, indolyl, oxazolyl, pyridinyl, imidazolyl, isoxazolyl, pyrimidinyl and phenyl; R^7 is optionally substituted at a substitutable position with one or more radicals of R^{7a} .

10 L_1 is independently selected from direct bond, $-\text{CO}-$, $-\text{CONH}-$, $-\text{CONR}^{11}-$, $-\text{C}(=\text{NR}^{11})-$, $-\text{C}(=\text{NOR}^{11})-$, $-\text{C}(=\text{NN}(\text{R}^{11})_2)-$; C_{2-6} alidiyl chain, wherein the alidiyl chain is optionally interrupted by $-\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})_2\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})=\text{C}(\text{R}^{11})-$, $-\text{C}\equiv\text{C}-$, $-\text{O}-$, $-\text{S}-$, $-\text{N}(\text{R}^{10})\text{CO}-$, $-\text{N}(\text{R}^{10})\text{CO}_2-$, $-\text{NR}^{11}-$, $-\text{OR}^{11}-$, $-\text{CON}(\text{R}^{10})-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC}(=\text{O})-$, $-\text{OC}(=\text{O})\text{N}(\text{R}^{10})-$, $-\text{SO}_2-$, $-\text{N}(\text{R}^{10})\text{SO}_2-$, or $-\text{SO}_2\text{N}(\text{R}^{10})-$; $-(\text{CH}_2)_m-\text{V}_0-(\text{CH}_2)_n-$ or $-\text{V}_0-(\text{CH}_2)_n-\text{V}_0-$; m is 0-6; n is 0-6; V_0 is independently $-\text{C}(\text{R}^{11})_2-$,
 15 $-\text{C}(\text{R}^{11})_2\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})=\text{C}(\text{R}^{11})-$, $-\text{C}(\text{R}^{11})_2\text{O}-$, $-\text{C}(\text{R}^{11})_2\text{NR}^{11}-$, $-\text{C}\equiv\text{C}-$, $-\text{O}-$, $-\text{S}-$, $-\text{NR}^{11}-$, $-\text{CR}^{11}\text{NR}^{11}-$, $-\text{N}(\text{R}^{10})\text{CO}-$, $-\text{N}(\text{R}^{10})\text{CO}_2-$, $-\text{CON}(\text{R}^{10})-$, $-\text{OCO}-$, $-\text{COR}^{11}-$, $-\text{COOR}^{11}-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC}(=\text{O})-$, $-\text{OC}(=\text{O})\text{N}(\text{R}^{10})-$, $-\text{SO}_2-$, $-\text{N}(\text{R}^{10})\text{SO}_2-$, $-\text{NR}^{10}\text{COR}^{10}-$, $-\text{NR}^{10}\text{CSNR}^{10}-$, cyclo C_{3-8} haloalkyl or $-\text{SO}_2\text{N}(\text{R}^{10})-$. More specifically, L_1 is selected from the group consisting of $-\text{CONH}-$, $-\text{C}_{1-6}$ alkyl-, $-\text{C}_{1-6}$ alkoxy-, $-\text{CO}-$, $-\text{SO}_2-$, $-\text{CH}_2-$, $-\text{CH}_2\text{O}-$, $-\text{CH}_2\text{CH}_2-$, $-\text{C}=\text{O}-$, $-\text{CONH}-$, $-\text{CONHC}(\text{CH}_3)_2-$,
 20 $-\text{CONH}(\text{CH}_2)_3\text{OCH}_2-$, $-\text{OCH}_2\text{CH}_2-$, $-\text{OCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2-$, and $-\text{CONHCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2-$.

L_3 is independently selected from direct bond, $-\text{CO}-$, $-\text{CONH}-$, $-\text{CONR}^{11}-$, $-\text{C}(=\text{NR}^{11})-$, $-\text{C}(=\text{NOR}^{11})-$, $-\text{C}(=\text{NN}(\text{R}^{11})_2)-$; C_{2-6} alidiyl chain, wherein the alidiyl chain is optionally interrupted by $-\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})_2\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})=\text{C}(\text{R}^{11})-$, $-\text{C}\equiv\text{C}-$, $-\text{O}-$, $-\text{S}-$, $-\text{N}(\text{R}^{10})\text{CO}-$, $-\text{N}(\text{R}^{10})\text{CO}_2-$, $-\text{NR}^{11}-$, $-\text{OR}^{11}-$, $-\text{CON}(\text{R}^{10})-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC}(=\text{O})-$, $-\text{OC}(=\text{O})\text{N}(\text{R}^{10})-$, $-\text{SO}_2-$, $-\text{N}(\text{R}^{10})\text{SO}_2-$, or $-\text{SO}_2\text{N}(\text{R}^{10})-$;
 25 $-(\text{CH}_2)_m-\text{V}_0-(\text{CH}_2)_n-$ or $-\text{V}_0-(\text{CH}_2)_n-\text{V}_0-$; m is 0-6; n is 0-6; V_0 is independently $-\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})_2\text{C}(\text{R}^{11})_2-$, $-\text{C}(\text{R}^{11})=\text{C}(\text{R}^{11})-$, $-\text{C}(\text{R}^{11})_2\text{O}-$, $-\text{C}(\text{R}^{11})_2\text{NR}^{11}-$, $-\text{C}\equiv\text{C}-$, $-\text{O}-$, $-\text{S}-$, $-\text{NR}^{11}-$, $-\text{CR}^{11}\text{NR}^{11}-$, $-\text{N}(\text{R}^{10})\text{CO}-$, $-\text{N}(\text{R}^{10})\text{CO}_2-$, $-\text{CON}(\text{R}^{10})-$, $-\text{OCO}-$, $-\text{COR}^{11}-$, $-\text{COOR}^{11}-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC}(=\text{O})-$, $-\text{OC}(=\text{O})\text{N}(\text{R}^{10})-$, $-\text{SO}_2-$, $-\text{N}(\text{R}^{10})\text{SO}_2-$, $-\text{NR}^{10}\text{COR}^{10}-$, $-\text{NR}^{10}\text{CSNR}^{10}-$, cyclo C_{3-8} haloalkyl or $-\text{SO}_2\text{N}(\text{R}^{10})-$. More specifically, L_3 is $-\text{CO}-$, $-\text{C}_{1-6}$ alidiyl-, $-\text{CONH}-$, $-\text{CONR}^{11}-$, $-\text{CONR}^{11}\text{NR}^{11}-$,
 30 $-\text{CH}_2\text{OCH}_2-$, $-\text{CH}_2\text{OCH}_2\text{CH}_2-$, $-\text{OCH}_2-$, $-\text{CH}_2\text{N}(\text{CH}_3)_2-$, $-\text{CH}_2\text{NHCH}_2-$, $-\text{CONR}^{11}\text{O}-$, $-\text{CH}_2\text{OCOCH}_2-$, $-\text{CH}_3\text{N}(\text{CH}_3)(\text{CH}_2)-$, $-\text{CH}_2\text{N}(\text{cyclopropane})\text{CH}_2-$, $-\text{CH}_2\text{NC}(\text{CH}_3)_2\text{CH}_2-$, $-\text{CH}_2\text{N}(\text{cyclohexane})\text{CH}_2-$, $-\text{CH}_2\text{NCH}(\text{CH}_3)_2\text{CH}_2-$, $-\text{CH}_2\text{N}(\text{CF}_3)(\text{CH}_2)_2-$, $-\text{CH}_2\text{N}(\text{CH}_3)(\text{CH}_2)\text{CH}_2\text{OCOCH}_2\text{CH}_2-$, $-\text{CONHCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2-$, or $-\text{CH}_2\text{N}(\text{CH}_2\text{C}\equiv\text{N})\text{CH}_2-$.

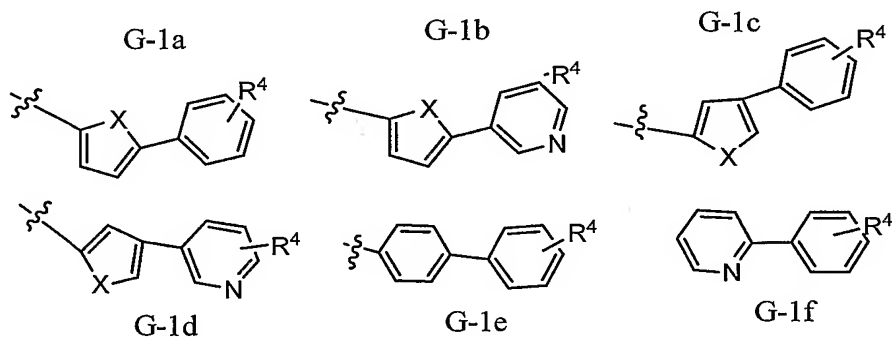
R^{7a} is selected from the group consisting of halogen, trifluoromethyl, C_{1-6} alkyl, C_{1-6} alkoxy, $CH=CHCOOH$, CH_2COOH , OCH_2COOH , $OCONHCH(CH_3)_2$, $NHCOCH_3$, OH , OCH_3 , $COOH$, $COOCH_3$, $OCH_2C(CH_3)_3$, $OCH_2CH(CH_3)_2$, $OCH(CH_3)_2OCOCH(CH_3)_2$, $OCONHCH_3$, OCH_2CH_3 , or $OCH(CH_3)_2$.

5 L_2 is independently selected from direct bond, $-CO-$, $-CONH-$, $-CONR^{11}-$, $-C(=NR^{11})-$, $-C(=NOR^{11})-$, $-C(=NN(R^{11})_2)-$; C_{2-6} aldiyl chain, wherein the aldiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-NR^{11}-$, $-OR^{11}-$, $-CON(R^{10})-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, or $-SO_2N(R^{10})-$; $-(CH_2)_m-V_0-(CH_2)_n-$ or $-V_0-(CH_2)_n-V_0-$; m is 0-6; n is 0-6; V_0 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-NR^{11}-$, $-CR^{11}NR^{11}-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-OCO-$, $-COR^{11}-$, $-COOR^{11}-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-NR^{10}COR^{10}-$, $-NR^{10}CSNR^{10}-$, cyclo C_{3-8} haloalkyl or $-SO_2N(R^{10})-$. More specifically, L_2 is selected from the group consisting of $-CONH-$, $-CONHCH_2-$, $-CH_2O-$, $-OCH_2COOCH_2-$, $-O-$, $C\equiv C-$, $-OCH_2CH_2-$ and $-CONHOCH_2CH(OH)CH_2O-$.

15 R^{5a} is independently selected from the group consisting of $OCH_2C(CH_3)_3$, Cl , F , Br , $OCH_2CH(CH_3)_2$, OCH_2CH_3 , CF_3 , $COOH$, OCH_3 , OH , NO_2 , $OCOCH(CH_3)_2$, $OCOC(CH_3)_3$, $NHCOCH_3$, $OCON(CH_3)_2$, $OCONHCH_3$, $OCON(CH_2)_2CH_3$, $OCONHCH(CH_3)_2$, $O(CH_2)_2$, $CONH_2$, $O(CH)(CH_3)_2$, C_{1-6} alkyl, OCH_2COOH , $OCH_2COOC(CH_3)_3$, $O(CH_2)_2N(CH_2CH_3)_2$, $OC(CH_3)_2COOC(CH_3)_3$, and OCH_2CH_2OH . Preferred R^{5a} is halogen or trifluoromethyl.

20 R^4 is selected from the group consisting of OH , CN , $C(CH_3)_2OH$, SO_2CH_3 , $SO_2C(CH_3)_3$, SO_2NH_2 , $SO_2CH_2CH_3$, SCH_2CH_3 , SCH_3 , OCH_3 , C_{1-6} alkyl, CH_2COOH , $C(CH_3)_2COOH$, $NHSO_2CH_3$, F , Cl , Br , $C(CH_3)_2COOH$, CH_2COOCH_3 , $C(CH_3)_2COOCH_3$, CH_2CH_2COOH , OCH_2COOCH_3 , $COCH_3$, $COOC(CH_3)_3$, cyclobutane- $COOH$, $OC(CH_3)_2COOH$, $COOCH_2CH_3$, OCF_3 , and CF_3 .

25 Another embodiment of this invention relates to compounds as described above wherein G is selected from the group consisting of:



Of the above compounds, R is selected from the group consisting of C₀₋₆ aldiyl chain wherein the aldiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰)-.

5 Each R⁴ is independently selected from, C₁₋₆ alkyl, CR¹¹=CR¹¹COOR¹¹, C₁₋₆ alkoxy, C₀₋₆ alkylOR¹¹, C₀₋₆ alkylCOR¹¹, C₀₋₆ alkylSO₂R¹¹, C₀₋₆ alkylOCOOR¹¹, C₀₋₆ alkylNR¹¹COR¹¹, C₀₋₆ alkylSO₂NR¹¹COR¹¹, C₀₋₆ alkyl SO₂N(R¹¹)₂, C₀₋₆ alkylSR¹¹, (C₀₋₆ alkyl)C=O(OR¹¹), OVOR¹¹, halogen, C₁₋₆haloalkyl, C₁₋₆haloalkylOR¹¹, OC₁₋₆haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C₁₋₆ alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, OC₀₋₆ alkylCOOR¹¹, C₀₋₆ alkylC≡N, C₀₋₆ alkoxyheteroaryl, C₀₋₆alkoxyheterocyclyl, cycloalkylCOOR¹¹, a 5-12 membered aromatic ring or non-aromatic ring, or 5-12 membered heteroaryl or heterocyclyl having one or more heteroatoms N, O or S. Preferred R⁴ is selected from the group consisting of SO₂CH₃, SO₂C(CH₃)₃, SO₂CH₂CH₃, SCH₂CH₃, SCH₃, OCH₃, C₁₋₆ alkyl, CH₂COOH, C(CH₃)₂COOH, NHSO₂CH₃, F, Cl, Br, cyclobutane-COOH, OC(CH₃)₂COOH, CF₃, C(CH₃)₂COOH, CH₂COOCH₃, CH₂CH₂COOH, 15 OCH₂COOCH₃, and COCH₃. More preferably, R⁴ is SO₂CH₃, SO₂CH₂CH₃, SCH₂CH₃, or SCH₃.

X is selected from the group consisting of S, NR¹¹ and O.

Each R⁴ is optionally substituted at a substitutable position with one or more radicals of R^{4a}; Each R^{4a} is independently selected from hydrogen, C₁₋₆ alkyl, (C₁₋₆ alkyl)C=O(OR¹¹); C₁₋₆ alkoxy, C₀₋₆ alkylOR¹¹, C₀₋₆ alkylCOR¹¹, C₀₋₆ alkylSO₂R¹¹, C₀₋₆ alkylSO₂N(R¹¹)₂; C₀₋₆ alkylSR¹¹, (C₀₋₆ 20 alkyl)OC=O(OR¹¹), halogen, C₁₋₆ haloalkyl, aryloxy, aralkyloxy, aryloxyalkyl, C₁₋₆ alkoxyaryl, arylC₀₋₆ alkylcarboxy, NR¹¹SO₂R¹¹, OC₁₋₆ alkyl, C₀₋₆ alkylC≡N, or OC₀₋₆ alkylCOOR¹¹.

In a third aspect, the invention provides a pharmaceutical composition comprising a compound of any of formulas Ia-d, II-XXVIII, and XXIXa-d, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically acceptable carrier.

25 In another embodiment, the invention provides a pharmaceutical composition comprising a compound of formula XIX, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically acceptable carrier.

In another embodiment, the invention provides a pharmaceutical composition comprising a compound of formula XXII, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically 30 acceptable carrier.

In another embodiment, the invention provides a pharmaceutical composition comprising a compound of formula XXV, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically acceptable carrier

In another embodiment, the invention provides a pharmaceutical composition comprising a compound of formula XXIII, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically acceptable carrier.

5 In another embodiment, the invention provides a pharmaceutical composition comprising a compound of formula Ia-d, or a pharmaceutically acceptable derivative thereof, in a pharmaceutically acceptable carrier.

10 In a fourth aspect, the invention provides a kit, comprising a packaging material and a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d, or a pharmaceutically acceptable derivative thereof, which is effective for modulating the activity of a nuclear receptor or for treatment, prevention, inhibition, or amelioration of one or more symptoms of nuclear receptor mediated diseases or disorders.

15 In another embodiment, the invention provides a kit, comprising a packaging material, and a compound of formula Ia-d, or a pharmaceutically acceptable derivative thereof, which is effective for modulating the activity of a nuclear receptor or for treatment, prevention, inhibition, or amelioration of one or more symptoms of nuclear receptor mediated diseases or disorders.

20 In another embodiment, the invention provides a kit, comprising a packaging material, a compound of formula Ia-d, or a pharmaceutically acceptable derivative thereof, which is effective for modulating the activity of a nuclear receptor or for treatment, prevention, inhibition, or amelioration of one or more symptoms of nuclear receptor mediated diseases or disorders, further comprising a label that indicates that the compound of formula Ia-d, or pharmaceutically acceptable derivative thereof, is used for modulating the activity of a nuclear receptor or for treatment, prevention or amelioration of one or more symptoms of nuclear receptor mediated diseases or disorders, or diseases or disorders in which nuclear receptor activity is implicated.

25 In a sixth aspect, the invention provides a method of treating, preventing, inhibiting, or ameliorating the symptoms of a disease or disorder that is modulated or otherwise affected by nuclear receptor activity or in which nuclear receptor activity is implicated, comprising administering to a subject in need thereof a therapeutically effective amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d,

30 In a preferred embodiment of the sixth aspect, the invention provides a method of treating, preventing, inhibiting, or ameliorating the symptoms of a disease or disorder that is modulated or otherwise affected by nuclear receptor activity or in which nuclear receptor activity is implicated, comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to part (A) of formulas Ia-d.

When part (A) of formulas Ia-d is referenced herein with respect to methods of using compounds of the invention, such as for treatment, prevention, inhibition, or amelioration of disease, or for use in preparation of a medicament for the treatment, prevention, or amelioration of disease, it is meant that all compounds defined by part (A) are included and the provisos of part (B) of the same formulas are not to be considered when determining the scope of the compounds defined for the uses therein.

In a preferred embodiment of the sixth aspect, the invention provides the method wherein the disease or disorder is hypercholesterolemia, hyperlipoproteinemia, hypertriglyceridemia, lipodystrophy, hyperglycemia, diabetes mellitus, dyslipidemia, atherosclerosis, gallstone disease, acne vulgaris, acneiform skin conditions, diabetes, Parkinson's disease, cancer, Alzheimer's disease, inflammation, immunological disorders, lipid disorders, obesity, conditions characterized by a perturbed epidermal barrier function, conditions of disturbed differentiation or excess proliferation of the epidermis or mucous membrane, or cardiovascular disorders.

In a seventh aspect, the invention provides a method of reducing cholesterol levels in a subject in need thereof, comprising administering an effective cholesterol level-reducing amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d,

In a preferred embodiment of the seventh aspect, the invention provides a method of reducing cholesterol levels in a subject in need thereof, comprising administering an effective cholesterol level-reducing amount of a compound according to part (A) of formulas Ia-d.

In an eighth aspect, the invention provides a method of treating, preventing, or ameliorating one or more symptoms of a disease or disorder which is affected by cholesterol, triglyceride, or bile acid levels, comprising administering to a subject in need thereof a therapeutically effective amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

In a preferred embodiment of the eighth aspect, the invention provides a method of treating, preventing, or ameliorating one or more symptoms of a disease or disorder which is affected by cholesterol, triglyceride, or bile acid levels, comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to part (A) of formulas Ia-d.

In a ninth aspect, the invention provides a method of modulating nuclear receptor activity, comprising contacting the nuclear receptor with a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

In a preferred embodiment of the ninth aspect, the invention provides a method of modulating nuclear receptor activity, comprising contacting the nuclear receptor with a compound according to part (A) of formulas Ia-d.

In an embodiment of the ninth aspect, the invention provides the method wherein the nuclear receptor is an orphan nuclear receptor.

In an embodiment of the ninth aspect, the invention provides the method wherein the nuclear receptor is a liver X receptor.

5 In a preferred embodiment of the ninth aspect, the invention provides the method wherein the nuclear receptor is a liver X receptor, wherein the liver X receptor is LXR α or LXR β .

In an eleventh aspect, the invention provides a method of modulating cholesterol metabolism, comprising administering an effective cholesterol metabolism-modulating amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

10 In a preferred embodiment of the eleventh aspect, the invention provides a method of modulating cholesterol metabolism, comprising administering an effective cholesterol metabolism-modulating amount of a compound according to part (A) of formulas Ia-d.

In a twelfth aspect, the invention provides a method of treating, preventing, inhibiting, or ameliorating one or more symptoms of hypocholesterolemia in a subject in need thereof, comprising
15 administering a therapeutically effective amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

In a preferred embodiment of the twelfth aspect, the invention provides a method of treating, preventing, inhibiting, or ameliorating one or more symptoms of hypocholesterolemia in a subject in need thereof, comprising administering a therapeutically effective amount of a compound according to
20 part (A) of formulas Ia-d.

In a thirteenth aspect, the invention provides a method of increasing cholesterol efflux from cells of a subject, comprising administering an effective cholesterol efflux-increasing amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

In a preferred embodiment of the thirteenth aspect, the invention provides a method of increasing
25 cholesterol efflux from cells of a subject, comprising administering an effective cholesterol efflux-increasing amount of a compound according to part (A) of formulas Ia-d.

In a fourteenth aspect, the invention provides a method of increasing the expression of ATP-Binding Cassette (ABC₁) in the cells of a subject, comprising administering an effective ABC₁ expression-increasing amount of a compound of any of formula Ia-d, II-XXVIII, and XXIXa-d.

30 **Definitions**

The following definitions apply to the terms used herein, unless expressly stated to the contrary. So, for example, "alkyl" is defined hereinbelow as containing from 1 to 12 carbon atoms, but a substituent defined as C₁₋₆alkyl is limited to an alkyl moiety of from 1 to 6 carbons. All selections of any

variables in connection with any of the general structures or formulas herein are understood to be proper only when said selection yields a stable chemical structure as recognized by one skilled in the art.

When particular embodiments are referred to by structure only, all otherwise unnamed chemical groups making up that structure are as defined in each embodiment of that structure. So, for example, when it is stated, "In another embodiment, the invention provides the compound according to any one of formulas Ia-d, wherein K is phenyl or pyridyl," it is meant that another embodiment of the invention comprises each embodiment of any one of formulas Ia-d described in the specification in which K is phenyl or pyridyl and all other moieties are as defined in the respective embodiment.

For simplicity, chemical moieties are defined and referred to throughout primarily as univalent chemical moieties (*e.g.*, alkyl, aryl, etc.). Nevertheless, such terms are also used to convey corresponding multivalent moieties under the appropriate structural circumstances clear to those skilled in the art. For example, while an "alkyl" moiety generally refers to a monovalent radical (*e.g.* $\text{CH}_3\text{-CH}_2\text{-}$), in certain circumstances a bivalent linking moiety can be "alkyl," in which case those skilled in the art will understand the alkyl to be a divalent radical (*e.g.*, $\text{-CH}_2\text{-CH}_2\text{-}$), which is equivalent to the term "alkylene." (Similarly, in circumstances in which a divalent moiety is required and is stated as being "aryl," those skilled in the art will understand that the term "aryl" refers to the corresponding divalent moiety, arylene.) All atoms are understood to have their normal number of valences for bond formation (*i.e.*, 4 for carbon, 3 for N, 2 for O, and 2, 4, or 6 for S, depending on the oxidation state of the S). On occasion a moiety may be defined, for example, as $(\text{A})_a\text{-B-}$, wherein *a* is 0 or 1. In such instances, when *a* is 0, the moiety is B-, and when *a* is 1 the moiety is A-B-. Similarly, $\text{C}_{0-6}\text{ alkylOR}^{11}$ includes both -OR^{11} and $\text{C}_1\text{-C}_6\text{-OR}^{11}$, and $\text{-[C(R}^{15})_2]_m\text{-}$ is a bond when *m* is 0. In the instances when a moiety is a divalent radical, there is no implied limitation on the location of the two bonds connecting the linking radical to its two supporting chemical units. For example, for a divalent cyclohexyl radical, the cyclohexyl can be connected either through two separate chemical bonds to two distinct carbons atoms within the ring; or the two bonds can be connected to the same carbon atom in the ring. In an illustrative example, if a divalent cyclopropyl radical connects connect two phenyl rings together, this definition encompasses both 1,2-diphenylcyclopropyl and 1,1-diphenylcyclopropyl units.

As used herein the singular forms "a", "an", and "the" include plural referents unless the context clearly dictates otherwise. For example, "a compound" refers to one or more of such compounds, while "the enzyme" includes a particular enzyme as well as other family members and equivalents thereof as known to those skilled in the art. As used in the specification and appended claims, unless specified to the contrary, the following terms have the meaning indicated.

The term "absent" as used herein means the group is replaced by a single bond. If replacing the group with a bond results in two connected moieties both defined as bonds, then -bond-bond- groups are understood to reduce to a single bond.

5 The term "interrupted by" as used herein means the group specified is inserted at any point within the specified chain, but not at the termini. For example, if a C₃-alkyl chain, as defined herein, is interrupted by -O-, then the following groups would be encompassed: -CH₂-O-CH₂ CH₂-, -CH₂-CH₂-O-CH₂-, -CH(CH₃)-O-CH₂-, and -CH₂-O-CH(CH₃)-.

10 The terms "aliphatic" and "aliphatic group" as used herein means straight-chain, branched or cyclic C₁-C₁₂ (unless stated otherwise) hydrocarbon radicals which are completely saturated or which contain one or more units of unsaturation but which are not aromatic. For example, suitable aliphatic groups include substituted or unsubstituted linear, branched or cyclic alkyl, alkenyl, alkynyl groups and hybrids thereof such as (cycloalkyl)alkyl, (cycloalkenyl)alkyl or (cycloalkyl)alkenyl.

15 The terms "alkyl", "alkoxy", "hydroxyalkyl", "alkoxyalkyl", and "alkoxycarbonyl", used alone or as part of a larger moiety include both straight and branched chains containing one to twelve carbon atoms.

The terms "alkenyl" and "alkynyl" used alone or as part of a larger moiety include both straight and branched chains containing two to twelve carbon atoms.

The term "alkoxy" refers to an -O-alkyl radical, where alkyl is defined herein.

20 "Alkyl" refers to a straight or branched hydrocarbon chain radical consisting solely of carbon and hydrogen atoms, containing no unsaturation, having from one to twelve carbon atoms, preferably one to eight, and which is attached to the rest of the molecule by a single bond, e.g., methyl, ethyl, *n*-propyl, 1-methylethyl (iso-propyl), *n*-butyl, *n*-pentyl, 1,1-dimethylethyl (*t*-butyl), and the like. Unless stated otherwise specifically in the specification, the alkyl radical is optionally substituted by one or more substituents selected from the group consisting of halo, cyano, nitro, -OR¹¹, -N(R¹¹)₂, -COR¹¹,
25 -COOR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹⁰, -N(R¹¹)COR¹¹, -NSO₂ R¹¹, -N(R¹¹)SO₂ R¹¹, -SO₂OR¹¹, -SO₂R¹¹, and -SO₂N(R¹¹)₂ where each R¹⁰ and R¹¹ are as defined above in the first aspect of the invention. Unless stated otherwise specifically in the specification, it is understood that for radicals, as defined below, that contain a substituted alkyl group that the substitution can occur on any carbon of the alkyl group.

30 "Alkenyl" refers to a straight or branched hydrocarbon chain radical consisting solely of carbon and hydrogen atoms, containing at least one double bond, having from two to eight carbon atoms, and which is attached to the rest of the molecule by a single bond or a double bond, e.g., ethenyl, prop-1-enyl, but-1-enyl, pent-1-enyl, penta-1,4-dienyl, and the like. Unless stated otherwise specifically in the specification, the alkenyl radical is optionally substituted by one or more substituents selected from the

group consisting of halo, cyano, nitro, $-\text{OR}^{11}$, $-\text{N}(\text{R}^{11})_2$, $-\text{COR}^{11}$, $-\text{COOR}^{11}$, $-\text{CON}(\text{R}^{11})_2$, $-\text{N}(\text{R}^{11})\text{COOR}^{10}$, $-\text{N}(\text{R}^{11})\text{COR}^{11}$, $-\text{NSO}_2\text{R}^{11}$, $-\text{N}(\text{R}^{11})\text{SO}_2\text{R}^{11}$, $-\text{SO}_2\text{OR}^{11}$, $-\text{SO}_2\text{R}^{11}$, and $-\text{SO}_2\text{N}(\text{R}^{11})_2$ where each R^{10} and R^{11} are as defined above in the first aspect of the invention. Unless stated otherwise specifically in the specification, it is understood that for radicals, as defined below, that contain a substituted alkenyl group that the substitution can occur on any carbon of the alkenyl group.

“Aryl” refers to aromatic monocyclic or multicyclic ring system containing from 6 to 19 carbon atoms, where the ring system is optionally partially or fully saturated. Aryl groups include, but are not limited to groups such as fluorenyl, phenyl and naphthyl. Unless stated otherwise specifically in the specification, the term “aryl” is meant to include aryl radicals optionally substituted by one or more substituents selected from the group consisting of alkyl, alkenyl, halogen, haloalkyl, haloalkenyl, cyano, nitro, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, $-\text{R}^0-\text{OR}^{11}$, $-\text{R}^0-\text{N}(\text{R}^{11})_2$, $-\text{R}^0-\text{COR}^{11}$, $-\text{R}^0-\text{COOR}^{11}$, $-\text{R}^0-\text{CON}(\text{R}^{11})_2$, $-\text{R}^0-\text{N}(\text{R}^{11})\text{COOR}^{10}$, $-\text{R}^0-\text{N}(\text{R}^{11})\text{COR}^{11}$, $-\text{R}^0-\text{NSO}_2\text{R}^{11}$, $-\text{R}^0-\text{N}(\text{R}^{11})\text{SO}_2\text{R}^{11}$, $-\text{R}^0-\text{SO}_2\text{OR}^{11}$, $-\text{R}^0-\text{SO}_2\text{R}^{11}$, and $-\text{R}^0-\text{SO}_2\text{N}(\text{R}^{11})_2$ where each R^0 is independently selected from a substituted or an unsubstituted aliphatic group, an unsubstituted heteroaryl or heterocyclic ring, phenyl (Ph), substituted Ph, $-\text{OPh}$, substituted $-\text{OPh}$, or substituted $-\text{CH}_2\text{Ph}$. Examples of substituents on the aliphatic group or phenyl ring of R^0 include amino, alkylamino, dialkylamino, aminocarbonyl, halogen, alkyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminocarbonyloxy, dialkylaminocarbonyloxy, alkoxy, nitro, cyano, carboxy, alkoxy carbonyl, alkyl carbonyl, hydroxy, haloalkoxy or haloalkyl.

An aliphatic group or non-aromatic heterocyclic ring may contain one or more substituents. Examples of suitable substituents on the saturated carbon of an aliphatic group or of non-aromatic heterocyclic ring include those listed above for unsaturated carbon of an aryl or heteroaryl group and including the following: $=\text{O}$, $=\text{S}$, $=\text{NNHR}^0$, $=\text{NN}(\text{R}^0)_2$, $=\text{N}-$, $=\text{NNHC}(\text{O})\text{R}^0$, $=\text{NNHCO}_2$ (alkyl), $=\text{NNHSO}_2$ (alkyl), or $=\text{NR}^0$, where R^0 is independently selected from hydrogen, unsubstituted or substituted aliphatic group, an unsubstituted heteroaryl or heterocyclic ring, phenyl (Ph), substituted Ph, $-\text{OPh}$, substituted $-\text{OPh}$, $-\text{CH}_2\text{Ph}$ or substituted $-\text{CH}_2\text{Ph}$. Examples of substituents on the aliphatic group include amino, alkylamino, dialkylamino, aminocarbonyl, halogen, alkyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminocarbonyloxy, dialkylaminocarbonyloxy, alkoxy, nitro, cyano, carboxy, alkoxy carbonyl, alkyl carbonyl, hydroxy, haloalkoxy or haloalkyl.

Suitable substituents on the nitrogen of a non-aromatic heterocyclic ring include $-\text{R}^0$, $-\text{N}(\text{R}^0)_2$, $-\text{C}(\text{O})\text{R}^0$, CO_2R^0 , $-\text{C}(\text{O})\text{C}(\text{O})\text{R}^0$, $-\text{SO}_2\text{R}$, $-\text{SO}_2\text{N}(\text{R}^0)_2$, $-\text{C}(=\text{S})\text{N}(\text{R}^0)_2$, $-\text{C}(=\text{NH})-\text{N}(\text{R}^0)_2$, and $\text{NR}^0\text{RSO}_2\text{R}^0$ wherein each R^0 is independently selected from hydrogen, unsubstituted or substituted aliphatic group, an unsubstituted heteroaryl or heterocyclic ring, phenyl (Ph), substituted Ph, $-\text{OPh}$, substituted $-\text{OPh}$, or substituted $-\text{CH}_2\text{Ph}$. Examples of substituents on the aliphatic group or the phenyl ring include amino,

alkylamino, dialkylamino, aminocarbonyl, halogen, alkyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminocarbonyloxy, dialkylaminocarbonyloxy, alkoxy, nitro, cyano, carboxy, alkoxy carbonyl, alkyl carbonyl, hydroxy, haloalkoxy or haloalkyl.

5 The term "alkoxyaryl" as used herein means an aryl group, as defined herein, substituted with one or more alkoxy groups, as defined herein. Examples of alkoxyaryl groups include, but are not limited to, methoxyphenyl, butyloxyphenyl, and dimethoxynaphthyl.

"Aralkyl" or "arylalkyl" refers to a radical of the formula -RaRb where Ra is an alkyl radical as defined above and Rb is one or more aryl radicals as defined above, e.g., benzyl, diphenylmethyl and the like. The aryl radical(s) and the alkyl radical is optionally substituted as described above.

10 The term "aralkyloxy" or "arylalkoxy" as used herein, means an aralkyl group, as defined herein, appended to the parent molecule through a oxygen atom. Examples of aralkyloxy include, but are not limited to, benzyloxy, 2-phenylethoxy, 4-phenylbutoxy, 9-fluorenylmethoxy, and the like.

The term "arylalkylcarboxy" as used herein, means an arylalkyl group, as defined herein, appended to the parent molecule through a carboxy group, as defined herein. The carboxy group can be bonded in either sense; either with the carbonyl carbon bonded to the arylalkyl group and the oxygen bonded to the parent molecule; or the carbonyl bonded to the parent molecule and the oxygen bonded to the arylalkyl group. Examples of arylalkylcarboxy groups include, but are not limited to, benzylacetoxo, (benzyloxy)carbonyl, (2-phenylethoxy)carbonyl, phenyl-acetyloxy, and 1-oxo-5-phenyl-pentyloxy.

15 The term "aryloxy" as used herein, means an aryl group, as defined herein, appended to a parent molecule through an oxygen atom. Examples of "aryloxy" groups include, but are not limited to phenoxy, 1-naphthyloxy, and 2-naphthyloxy.

"Alkylene" and "alkylene chain" refer to a straight or branched divalent hydrocarbon chain, linking the rest of the molecule to a radical group, consisting solely of carbon and hydrogen, containing no unsaturation and having from one to twelve carbon atoms, preferably having from one to eight carbons, e.g., methylene, ethylene, propylene, *n*-butylene, and the like. The alkylene chain may be attached to the rest of the molecule and to the radical group through one carbon within the chain or through any two carbons within the chain. The alkylene chain is optionally substituted by one or more substituents selected from the group consisting of halo, cyano, nitro, -OR¹¹, -N(R¹¹)₂, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹⁰, -N(R¹¹)COR¹¹, -NSO₂R¹¹, -N(R¹¹)SO₂R¹¹, -SO₂OR¹¹, -SO₂R¹¹, and -SO₂N(R¹¹)₂ where each R¹⁰ and R¹¹ are as defined above in the first aspect of the invention. The alkylene chain may be attached to the rest of the molecule through any two carbons within the chain.

"Alkenylene" and "alkenylene chain" refer to a straight or branched divalent hydrocarbon chain linking the rest of the molecule to a radical group, consisting solely of carbon and hydrogen, containing at least one double bond and having from two to twelve carbon atoms, e.g., ethenylene, propenylene,

n-butenylene, and the like. The alkenylene chain is attached to the rest of the molecule through a single bond and to the radical group through a double bond or a single bond. The points of attachment of the alkenylene chain to the rest of the molecule and to the radical group can be through one carbon or any two carbons within the chain. The alkenylene chain is optionally substituted by one or more substituents selected from the group consisting of halo, cyano, nitro, -OR¹¹, -N(R¹¹)₂, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹⁰, -N(R¹¹)COR¹¹, -NSO₂R¹¹, -N(R¹¹)SO₂R¹¹, -SO₂OR¹¹, -SO₂R¹¹, and -SO₂N(R¹¹)₂ where each R¹⁰ and R¹¹ are as defined above in the first aspect of the invention.

The term "aryloxyalkyl" as used herein, means an alkyl group appended to the parent molecule, wherein the alkyl group is substituted with one aryloxy group, as defined herein. Examples of aryloxyalkyl groups include, but are not limited to phenoxymethyl, naphthyloxybutyl, and phenoxyhexyl.

The term "aryloxyaryl" as used herein, means an aryl group appended to the parent molecule, wherein the aryl group is substituted with one aryloxy group, as defined herein. Examples of aryloxyaryl groups include, but are not limited to phenoxyphenyl, naphthyloxyphenyl, and phenoxy-naphthyl.

The term "carbonyl" as used herein, means a -C(=O)- group.

The term "carboxy" as used herein, means a -C(=O)O- group.

"Cycloalkyl" refers to a stable monovalent monocyclic or bicyclic hydrocarbon radical consisting solely of carbon and hydrogen atoms, having from three to ten carbon atoms (unless stated otherwise), and which is saturated or includes one more unsaturated units (but is not aromatic) and is attached to the rest of the molecule by a single bond, e.g., cyclopropyl, cyclobutyl, cyclopentyl, cyclopent-1-enyl, cyclohexyl, cyclohex-2,4-dienyl, decalinyl and the like. Unless otherwise stated specifically in the specification, the term "cycloalkyl" is meant to include cycloalkyl radicals which are optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkenyl, halo, haloalkyl, haloalkenyl, cyano, nitro, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroarylalkyl, -OR¹¹, -N(R¹¹)₂, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹⁰, -N(R¹¹)COR¹¹, -NSO₂R¹¹, -N(R¹¹)SO₂R¹¹, -SO₂OR¹¹, -SO₂R¹¹, and -SO₂N(R¹¹)₂ where each R¹⁰ and R¹¹ are as defined above in the first aspect of the invention.

"Cycloalkylalkyl" refers to a radical of the formula -R_aR_d where R_a is an alkyl radical as defined above and R_d is a cycloalkyl radical as defined above. The alkyl radical and the cycloalkyl radical may be optionally substituted as defined above.

The term "cyclohaloalkyl" as used herein means a cycloalkyl group, as defined herein which is substituted by one or more halo groups, as defined herein. Examples of "cyclohaloalkyl" groups include, but are not limited to, bromocyclohexyl, trifluorocyclopentyl, dichlorocyclohexyl and the like.

“Halo” or “Halogen” refers to bromo, chloro, fluoro or iodo.

“Haloalkyl” refers to an alkyl radical, as defined above, that is substituted by one or more halo radicals, as defined above, e.g., trifluoromethyl, difluoromethyl, trichloromethyl, 2,2,2-trifluoroethyl, 1-fluoromethyl-2-fluoroethyl, 3-bromo-2-fluoropropyl, 1-bromomethyl-2-bromoethyl, and the like.

5 “Haloalkenyl” refers to an alkenyl radical, as defined above, that is substituted by one or more halo radicals, as defined above, e.g., 2-bromoethenyl, 3-bromoprop-1-enyl, and the like.

The term “haloaryl” as used herein, means an aryl group, as defined herein, substituted with one or more halo groups. Examples of haloaryl groups include, but are not limited to, bromophenyl, fluorophenyl, pentafluorophenyl, chloronaphthyl, chloro-iodophenyl, and the like.

10 “Heterocyclyl” refers to a stable 3- to 18-membered non-aromatic ring radical which consists of carbon atoms and from one to five heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur. For purposes of this invention, the heterocyclyl radical may be a monocyclic, bicyclic, tricyclic or tetracyclic ring system, which may include fused or bridged ring systems; and the nitrogen, carbon or sulfur atoms in the heterocyclyl radical is optionally oxidized; the nitrogen atom is optionally
15 quaternized; and the heterocyclyl radical may be partially or fully saturated. Examples of such heterocyclyl radicals include, but are not limited to, dioxolanyl, decahydroisoquinolyl, imidazolyl, imidazolidinyl, isothiazolidinyl, isoxazolidinyl, morpholyl, octahydroindolyl, octahydroisoindolyl, 2-oxopiperazinyl, 2-oxopiperidinyl, 2-oxopyrrolidinyl, oxazolidinyl, piperidinyl, piperazinyl, 4-piperidonyl, pyrrolidinyl, pyrazolidinyl, thiazolidinyl, tetrahydrofuranyl, trithianyl, tetrahydropyranyl, 20 thiomorpholyl, thiamorpholyl, 1-oxo-thiomorpholyl, and 1,1-dioxo-thiomorpholyl. Unless stated otherwise specifically in the specification, the term “heterocyclyl” is meant to include heterocyclyl radicals as defined above which are optionally substituted by one or more substituents selected from the group consisting of alkyl, alkenyl, halo, haloalkyl, haloalkenyl, nitro, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroarylalkyl, -OR¹¹, -N(R¹¹)₂, -COR¹¹,
25 -COOR¹¹, -CON(R¹¹)₂, -N(R¹¹)COOR¹⁰, -N(R¹¹)COR¹¹, -NSO₂R¹¹, -N(R¹¹)SO₂R¹¹, -SO₂OR¹¹, -SO₂R¹¹, and -SO₂N(R¹¹)₂ where each R¹⁰ and R¹¹ are as defined above in the first aspect of the invention.

“Heterocyclylalkyl” refers to a radical of the formula -RaRe where Ra is an alkyl radical as defined above and Re is a heterocyclyl radical as defined above, and if the heterocyclyl is a
30 nitrogen-containing heterocyclyl, the heterocyclyl may be attached to the alkyl radical at the nitrogen atom. The heterocyclyl radical and the alkyl radical is optionally substituted as defined above.

The term “heterocycliloxy” as used herein, means a heterocyclyl group, as defined herein, appended to a parent molecule through an oxygen atom. Examples of “heterocycliloxy” groups

include, but are not limited to piperidinyloxy, tetrahydrofuranyloxy, tetrahydrotheinyloxy, tetrahydropyranyloxy, dihydropyranyloxy, pyrrolidinyloxy, oxetanyloxy, and oxiranyloxy.

“Heteroaryl” refers to a 3- to 18-membered aromatic ring radical which consists of carbon atoms and from one to five heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur. For purposes of this invention, the heteroaryl radical may be a monocyclic, bicyclic, tricyclic or tetracyclic ring system, which may include fused or bridged ring systems; and the nitrogen, carbon or sulfur atoms in the heteroaryl radical is optionally oxidized; the nitrogen atom is optionally quaternized. Examples include, but are not limited to, azepinyl, acridinyl, benzimidazolyl, benzthiazolyl, benzindolyl, benzothiadiazolyl, benzonaphthofuranlyl, benzoxazolyl, benzodioxolyl, benzodioxinyl, benzopyranlyl, benzopyranonyl, benzofuranlyl, benzofuranonyl, benzothieryl (benzothiophenyl), benzotriazolyl, benzo[4,6]imidazo[1,2-a]pyridinyl, carbazolyl, cinnolinyl, dibenzofuranlyl, furanyl, furanonyl, isothiazolyl, imidazolyl, indolyl, indazolyl, isoindolyl, indolinyl, isoindolinyl, indoliziny, isoxazolyl, naphthyridinyl, oxadiazolyl, 2-oxoazepinyl, oxazolyl, oxiranyl, phenazinyl, phenothiazinyl, phenoxazinyl, phthalazinyl, phthalimidyl pteridinyl, purinyl, pyrrolyl, pyrazolyl, pyridinyl, pyrazinyl, pyrimidinyl, pyridazinyl, quinazolinyl, quinoxalinyl, quinolinyl, quinuclidinyl, isoquinolinyl, thiazolyl, thiadiazolyl, triazolyl, tetrazolyl, triazinyl, and thiophenyl. Unless stated otherwise specifically in the specification, the term “heteroaryl” is meant to include heteroaryl radicals as defined above which are optionally substituted by one or more substituents selected from the group consisting of alkyl, alkenyl, halo, haloalkyl, haloalkenyl, nitro, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroarylalkyl, $-OR^{11}$, $-N(R^{11})_2$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-N(R^{11})COOR^{10}$, $-N(R^{11})COR^{11}$, $-NSO_2R^{11}$, $-N(R^{11})SO_2R^{11}$, $-SO_2OR^{11}$, $-SO_2R^{11}$, and $-SO_2N(R^{11})_2$ where each R^{10} and R^{11} are as defined above in the first aspect of the invention. For purposes of this invention, the term “N-heteroaryl” refers to heteroaryl radicals as defined above containing at least one nitrogen atom in ring.

The term “heteroaryloxy” as used herein, means a heteroaryl group, as defined herein, appended to a parent molecule through an oxygen atom. Examples of “heteroaryloxy” groups include, but are not limited to pyridyloxy, indolyloxy, and quinolyloxy.

“Heteroarylalkyl” refers to a radical of the formula $-R_aR_f$ where R_a is an alkyl radical as defined above and R_f is a heteroaryl radical as defined above, and if the heteroaryl is a nitrogen-containing heteroaryl, the heteroaryl may be attached to the alkyl radical at the nitrogen atom. The heteroaryl radical and the alkyl radical are optionally substituted as defined above.

The term “linker group” or “linker” means an organic moiety that connects two parts of a compound. Linkers are typically comprised of an atom such as oxygen or sulfur, a unit such as $-NH-$, $-CH_2-$, $-CO-$, $-CONH-$, or a chain of atoms, such as an alidyl chain. The molecular mass of a linker is

typically in the range of about 14 to 200, preferably in the range of 14 to 96 with a length of up to about six atoms. Examples of linkers include a saturated or unsaturated C₁-C₆ aldiyl chain which is optionally substituted, and wherein one or two saturated carbons of the chain are optionally replaced by -CO-, -COCO-, -CONH-, -CONHNH-, -CO₂-, -NHCO₂-, -O-, -NHCONH-, -OCONH-, -NHNH-, -NHCO-, -S-, -SO-, -SO₂-, -NH-, -SO₂NH-, or -NHSO₂-.

The term "aldiyl chain" refers to an optionally substituted, straight or branched carbon chain that may be fully saturated or have one or more units of unsaturation. The optional substituents are as described above for an aliphatic group. Aldiyl chain used herein may include aldiyl chains containing 0-4 fluorine substituents.

An "agonist for a nuclear receptor" is an agent that, when bound to the nuclear receptor, activates nuclear receptor activity to activate or repress gene function. In some cases, nuclear receptors can act through second messenger signaling pathways, and the invention would apply to these actions as well. The activation can be similar in degree to that provided by a natural hormone for the receptor, or can be stronger (optionally referred to as a "strong agonist"), or can be weaker (optionally referred to as a "weak agonist" or "partial agonist"). An example of a hormone for a nuclear receptor is thyroid hormone, which is a natural hormone for the thyroid receptor. A "putative agonist" is an agent to be tested for agonist activity.

Partial agonists or partial antagonists bind to receptors and yield a response less than that of a full agonist at saturating ligand concentrations. A partial agonist will block binding of a full agonist and suppress receptor activity to the level induced by the partial agonist alone. For example, partial agonists bind to receptors and induce only part of the changes in the receptors that are induced by agonists. The differences can be qualitative or quantitative. Thus, a partial agonist can induce some of the conformation changes induced by agonists, but not others, or it may only induce certain changes to a limited extent. Some of these compounds are naturally produced. For example, many plant estrogens (phytoestrogens), such as genistein, can behave as partial estrogen receptor agonists.

An "antagonist for a nuclear receptor" is an agent that reduces or blocks activity mediated by the receptor in response to an agonist of the receptor. The activity of the antagonist can be mediated, e.g., by blocking binding of the agonist to the receptor, or by altering receptor configuration and/or activity of the receptor. A "putative antagonist" is an agent to be tested for antagonist activity.

A "nuclear receptor" is a receptor that activates or represses transcription of one or more genes in the nucleus (but can also have second messenger signaling actions), typically in conjunction with other transcription factors. The nuclear receptor is activated by the natural cognate ligand for the receptor. Nuclear receptors are ordinarily found in the cytoplasm or nucleus, rather than being membrane-bound. Nuclear receptor is a member of a superfamily of regulatory proteins that are

receptors for, e.g., steroids, retinoids, vitamin D and thyroid hormones. These proteins bind to cis-acting elements in the promoters of their target genes and modulate gene expression in response to a ligand therefor. Nuclear receptors may be classified based on their DNA binding properties. For example, the glucocorticoid, estrogen, androgen, progestin and mineralocorticoid receptors bind as homodimers to hormone response elements (HREs) organized as inverted repeats. Another example are receptors, including those activated by retinoic acid, thyroid hormone, vitamin D₃, fatty acids/peroxisome proliferators and ecdysone, that bind to HREs as heterodimers with a common partner, the retinoid X receptor (RXR). Among the latter receptors is LXR.

As used herein, an orphan nuclear receptor is a nuclear receptor for which the natural ligand is unknown.

As used herein, liver X receptor or LXR refers to a nuclear receptor implicated in cholesterol biosynthesis. As used herein, the term LXR refers to both LXR α and LXR β , two forms of the protein found in mammals. Liver X receptor- α , or LXR α refers to the receptor described in U.S. Pat. Nos. 5,571,696, 5,696,233 and 5,710,004, and Willy et al. (1995) *Gene Dev.* 9(9):1033-1045. Liver X receptor- β or LXR β refers to the receptor described in Peet et al. (1998) *Curr. Opin. Genet. Dev.* 8(5):571-575; Song et al. (1995) *Ann. N.Y. Acad. Sci.* 761:38-49; Alberti et al. (2000) *Gene* 243(1-2):93-103; and references cited therein; and in U.S. Pat. Nos. 5,571,696, 5,696,233 and 5,710,004.

As used herein, compounds which are "commercially available" may be obtained from standard commercial sources including Acros Organics (Pittsburgh PA), Aldrich Chemical (Milwaukee WI, including Sigma Chemical and Fluka), Apin Chemicals Ltd. (Milton Park UK), Avocado Research (Lancashire U.K.), BDH Inc. (Toronto, Canada), Bionet (Cornwall, U.K.), Chemservice Inc. (West Chester PA), Crescent Chemical Co. (Hauppauge NY), Eastman Organic Chemicals, Eastman Kodak Company (Rochester NY), Fisher Scientific Co. (Pittsburgh PA), Fisons Chemicals (Leicestershire UK), Frontier Scientific (Logan UT), ICN Biomedicals, Inc. (Costa Mesa CA), Key Organics (Cornwall U.K.), Lancaster Synthesis (Windham NH), Maybridge Chemical Co. Ltd. (Cornwall U.K.), Parish Chemical Co. (Orem UT), Pfaltz & Bauer, Inc. (Waterbury CN), Polyorganix (Houston TX), Pierce Chemical Co. (Rockford IL), Riedel de Haen AG (Hannover, Germany), Spectrum Quality Product, Inc. (New Brunswick, NJ), TCI America (Portland OR), Trans World Chemicals, Inc. (Rockville MD), and Wako Chemicals USA, Inc. (Richmond VA).

As used herein, "suitable conditions" for carrying out a synthetic step are explicitly provided herein or may be discerned by reference to publications directed to methods used in synthetic organic chemistry. The reference books and treatise set forth above that detail the synthesis of reactants useful in

the preparation of compounds of the present invention, will also provide suitable conditions for carrying out a synthetic step according to the present invention.

As used herein, "methods known to one of ordinary skill in the art" may be identified through various reference books and databases. Suitable reference books and treatise that detail the synthesis of reactants useful in the preparation of compounds of the present invention, or provide references to articles that describe the preparation, include for example, "Synthetic Organic Chemistry", John Wiley & Sons, Inc., New York; S. R. Sandler *et al.*, "Organic Functional Group Preparations," 2nd Ed., Academic Press, New York, 1983; H. O. House, "Modern Synthetic Reactions", 2nd Ed., W. A. Benjamin, Inc. Menlo Park, Calif. 1972; T. L. Gilchrist, "Heterocyclic Chemistry", 2nd Ed., John Wiley & Sons, New York, 1992; J. March, "Advanced Organic Chemistry: Reactions, Mechanisms and Structure", 4th Ed., Wiley-Interscience, New York, 1992. Specific and analogous reactants may also be identified through the indices of known chemicals prepared by the Chemical Abstract Service of the American Chemical Society, which are available in most public and university libraries, as well as through on-line databases (the American Chemical Society, Washington, D.C. may be contacted for more details). Chemicals that are known but not commercially available in catalogs may be prepared by custom chemical synthesis houses, where many of the standard chemical supply houses (*e.g.*, those listed above) provide custom synthesis services.

"Prodrugs" is meant to indicate a compound that may be converted under physiological conditions or by solvolysis to a biologically active compound of the invention. Thus, the term "prodrug" refers to a metabolic precursor of a compound of the invention that is pharmaceutically acceptable. A prodrug may be inactive when administered to a subject in need thereof, but is converted *in vivo* to an active compound of the invention. Prodrugs are typically rapidly transformed *in vivo* to yield the parent compound of the invention, for example, by hydrolysis in blood. The prodrug compound often offers advantages of solubility, tissue compatibility or delayed release in a mammalian organism (see, Bundgard, H., *Design of Prodrugs* (1985), pp. 7-9, 21-24 (Elsevier, Amsterdam). A discussion of prodrugs is provided in Higuchi, T., *et al.*, "Pro-drugs as Novel Delivery Systems," A.C.S. Symposium Series, Vol. 14, and in *Bioreversible Carriers in Drug Design*, ed. Edward B. Roche, American Pharmaceutical Association and Pergamon Press, 1987, both of which are incorporated in full by reference herein. The term "prodrug" is also meant to include any covalently bonded carriers which release the active compound of the invention *in vivo* when such prodrug is administered to a mammalian subject. Prodrugs of a compound of the invention may be prepared by modifying functional groups present in the compound of the invention in such a way that the modifications are cleaved, either in routine manipulation or *in vivo*, to the parent compound of the invention. By virtue of knowledge of pharmacodynamic processes and drug metabolism *in vivo*, those of skill in this art, once a

pharmaceutically active compound is known, can design prodrugs of the compound (see, e.g., Nogrady (1985) *Medicinal Chemistry A Biochemical Approach*, Oxford University Press, New York, pages 388-392). Prodrugs include compounds of the invention wherein a hydroxy, amino or mercapto group is bonded to any group that, when the prodrug of the compound of the invention is administered to a mammalian subject, cleaves to form a free hydroxy, free amino or free mercapto group, respectively. Examples of prodrugs include, but are not limited to, acetate, formate and benzoate derivatives of alcohol and amine functional groups in the compounds of the invention and the like.

“Polymorph” refers to the different crystal forms of a compound, resulting from the possibility of at least two different arrangements of the molecules of the compound in the solid state. Polymorphs of a given compound will be different in crystal structure but identical in liquid or vapor states. Different polymorphic forms of a given substance may differ from each other with respect to one or more physical properties, such as solubility and dissociation, true density, crystal shape, compaction behavior, flow properties, and/or solid state stability.

“Stable compound” and “stable structure” are meant to indicate a compound that is sufficiently robust to survive isolation to a useful degree of purity from a reaction mixture, and formulation into an efficacious therapeutic agent.

“Mammal” includes humans and domestic animals, such as cats, dogs, swine, cattle, sheep, goats, horses, rabbits, and the like.

“Optional” or “optionally” means that the subsequently described event or circumstances may or may not occur, and that the description includes instances where said event or circumstance occurs and instances in which it does not. For example, “optionally substituted aryl” means that the aryl radical may or may not be substituted and that the description includes both substituted aryl radicals as defined herein and aryl radicals having no substitution.

“Pharmaceutically acceptable carrier, diluent or excipient” includes without limitation any adjuvant, carrier, excipient, glidant, sweetening agent, diluent, preservative, dye/colorant, flavor enhancer, surfactant, wetting agent, dispersing agent, suspending agent, stabilizer, isotonic agent, solvent, or emulsifier which has been approved by the United States Food and Drug Administration as being acceptable for use in humans or domestic animals.

“Pharmaceutically acceptable salt” includes both acid and base addition salts.

“Pharmaceutically acceptable acid addition salt” refers to those salts which retain the biological effectiveness and properties of the free bases, which are not biologically or otherwise undesirable, and which are formed with inorganic acids such as hydrochloric acid, hydrobromic acid, sulfuric acid, nitric acid, phosphoric acid and the like, and organic acids such as acetic acid, trifluoroacetic acid, propionic acid, glycolic acid, pyruvic acid, oxalic acid, maleic acid, malonic acid, succinic acid, fumaric acid,

tartaric acid, citric acid, benzoic acid, cinnamic acid, mandelic acid, methanesulfonic acid, ethanesulfonic acid, p-toluenesulfonic acid, salicylic acid, and the like.

“Pharmaceutically acceptable base addition salt” refers to those salts which retain the biological effectiveness and properties of the free acids, which are not biologically or otherwise undesirable. These salts are prepared from addition of an inorganic base or an organic base to the free acid. Salts derived from inorganic bases include, but are not limited to, the sodium, potassium, lithium, ammonium, calcium, magnesium, iron, zinc, copper, manganese, aluminum salts and the like. Preferred inorganic salts are the ammonium, sodium, potassium, calcium, and magnesium salts. Salts derived from organic bases include, but are not limited to, salts of primary, secondary, and tertiary amines, substituted amines including naturally occurring substituted amines, cyclic amines and basic ion exchange resins, such as isopropylamine, trimethylamine, diethylamine, triethylamine, tripropylamine, ethanolamine, 2-dimethylaminoethanol, 2-diethylaminoethanol, dicyclohexylamine, lysine, arginine, histidine, caffeine, procaine, hydrabamine, choline, betaine, ethylenediamine, glucosamine, methylglucamine, theobromine, purines, piperazine, piperidine, N-ethylpiperidine, polyamine resins and the like. Particularly preferred organic bases are isopropylamine, diethylamine, ethanolamine, trimethylamine, dicyclohexylamine, choline and caffeine.

“Pharmaceutically acceptable derivative” refers to pharmaceutically acceptable salts as defined herein and also includes esters, prodrugs, solvates and polymorphs of the compounds of the invention.

“Therapeutically effective amount” refers to that amount of a compound of the invention which when administered to a mammal, preferably a human, is sufficient to effect treatment, as defined below, for a disease-state associated with nuclear receptor activity. The amount of a compound of the invention which constitutes a “therapeutically effective amount” will vary depending on the compound, the condition and its severity, and the age of the mammal to be treated, but can be determined routinely by one of ordinary skill in the art having regard to his own knowledge and to this disclosure.

“Modulating” or “modulate” refers to the treating, prevention, suppression, enhancement or induction of a function or condition. For example, the compounds of the present invention can modulate hyperlipidemia by lowering cholesterol in a human, thereby suppressing hyperlipidemia.

“Treating” or “treatment” as used herein covers the treatment of a disease or condition associated with the nuclear receptor activity as disclosed herein, in a mammal, preferably a human, and includes:

- i. Preventing a disease or condition associated with the nuclear receptor activity from occurring in a mammal, in particular, when such mammal is predisposed to the disease or condition but has not yet been diagnosed as having it;

- ii. inhibiting a disease or condition associated with the nuclear receptor activity, *i.e.*, arresting its development; or
- iii. relieving a disease or condition associated with the nuclear receptor activity, *i.e.*, causing regression of the condition.

5 The compounds of formulae Ia, Ib, Ic or Id or their pharmaceutically acceptable salts may contain one or more asymmetric centers and may thus give rise to enantiomers, diastereomers, and other stereoisomeric forms that may be defined, in terms of absolute stereochemistry, as (*R*)- or (*S*)- or, as (*D*)- or (*L*)- for amino acids. The present invention is meant to include all such possible isomers, as well as, their racemic and optically pure forms. Optically active (+) and (-), (*R*)- and (*S*)-, or (*D*)- and (*L*)-
10 isomers may be prepared using chiral synthons or chiral reagents, or resolved using conventional techniques, such as reverse phase HPLC. When the compounds described herein contain olefinic double bonds or other centers of geometric asymmetry, and unless specified otherwise, it is intended that the compounds include both *E* and *Z* geometric isomers. It will be apparent to one skilled in the art that certain compounds of this invention may exist in tautomeric forms, all such tautomeric forms of the
15 compounds being within the scope of the invention. Unless otherwise stated, structures depicted herein are also meant to include all stereochemical forms of the structure; *i.e.*, the *R* and *S* configurations for each asymmetric center. Therefore, single stereochemical isomers as well as enantiomeric and diastereomeric mixtures of the present compounds are within the scope of the invention. Unless otherwise stated, structures depicted herein are also meant to include compounds which differ only in
20 the presence of one or more isotopically enriched atoms. For example, compounds having the present structure except for the replacement of a hydrogen atom by a deuterium or tritium, or the replacement of a carbon atom by a ¹³C- or ¹⁴C-enriched carbon are within the scope of this invention.

The chemical naming protocol and structure diagrams used herein employ and rely on the chemical naming features as utilized by the ChemDraw program (available from CambridgeSoft Corp.,
25 Cambridge, MA). In particular, the compound names were derived from the structures using the Autonom program as utilized by Chemdraw Ultra or ISIS base (MDL Corp.).

The term "atherosclerosis" refers to process whereby atherosclerotic plaques form within the inner lining of the artery wall leading to atherosclerotic cardiovascular diseases. Atherosclerotic cardiovascular diseases can be recognized and understood by physicians practicing in the relevant fields
30 of medicine, and include without limitation, restenosis, coronary heart disease (also known as coronary artery heart disease or ischemic heart disease), cerebrovascular disease including ischemic stroke, multi-infarct dementia, and peripheral vessel disease, including intermittent claudication, and erectile dysfunction.

The term “dyslipidemia” refers to abnormal levels of lipoproteins in blood plasma including both depressed and/or elevated levels of lipoproteins (e.g., elevated levels of Low Density Lipoprotein, (LDL), Very Low Density Lipoprotein (VLDL) and depressed levels of High Density Lipoprotein (HDL) (less than 40 mg/dL)).

5 As used herein, “EC₅₀” refers to a dosage, concentration or amount of a particular test compound that elicits a dose-dependent response at 50% of maximal expression of a particular response that is induced, provoked or potentiated by the particular test compound.

The term “cholesterol” refers to a steroid alcohol that is an essential component of cell membranes and myelin sheaths and, as used herein, incorporates its common usage. Cholesterol also
10 serves as a precursor for steroid hormones and bile acids.

The term “triglyceride(s)” (“TGs”), as used herein, incorporates its common usage. TGs consist of three fatty acid molecules esterified to a glycerol molecule and serve to store fatty acids which are used by muscle cells for energy production or are taken up and stored in adipose tissue.

The term “hyperlipidemia” refers to the presence of an abnormally elevated level of lipids in the
15 blood. Hyperlipidemia can appear in at least three forms: (1) hypercholesterolemia, i.e., an elevated LDL cholesterol level (120 mg/dL and above); (2) hypertriglyceridemia, i.e., an elevated triglyceride level; (150 mg/dL and above) and (3) combined hyperlipidemia, i.e., a combination of hypercholesterolemia and hypertriglyceridemia.

Exemplary Primary Hyperlipidemia include, but are not limited to, the following:

- 20 (1) Familial Hyperchylomicronemia, a rare genetic disorder which causes a deficiency in an enzyme, LP lipase, that breaks down fat molecules. The LP lipase deficiency can cause the accumulation of large quantities of fat or lipoproteins in the blood;
- (2) Familial Hypercholesterolemia, a relatively common genetic disorder caused where the underlying defect is a series of mutations in the LDL receptor gene that result in malfunctioning
25 LDL receptors and/or absence of the LDL receptors. This brings about ineffective clearance of LDL by the LDL receptors resulting in elevated LDL and total cholesterol levels in the plasma;
- (3) Familial Combined Hyperlipidemia, also known as multiple lipoprotein-type hyperlipidemia; an inherited disorder where patients and their affected first-degree relatives can at various times manifest high cholesterol and high triglycerides. Levels of HDL cholesterol are
30 often moderately decreased;
- (4) Familial Defective Apolipoprotein B-100 is a relatively common autosomal dominant genetic abnormality. The defect is caused by a single nucleotide mutation that produces a substitution of glutamine for arginine which can cause reduced affinity of LDL particles for the LDL receptor. Consequently, this can cause high plasma LDL and total cholesterol levels;

Familial Dysbetalipoproteinemia, also referred to as Type III Hyperlipoproteinemia, is an uncommon inherited disorder resulting in moderate to severe elevations of serum triglyceride (TG) and cholesterol levels with abnormal apolipoprotein E function. HDL levels are usually normal; and

5 Familial Hypertriglyceridemia, is a common inherited disorder in which the concentration of plasma VLDL is elevated. This can cause mild to moderately elevated triglyceride levels (and usually not cholesterol levels) and can often be associated with low plasma HDL levels.

Risk factors in exemplary Secondary Hyperlipidemia include, but are not limited to, the following: (1) disease risk factors, such as a history of type 1 diabetes, type 2 diabetes, Cushing's syndrome, hypothyroidism and certain types of renal failure; (2) drug risk factors, which include, birth control pills; hormones, such as estrogen, and corticosteroids; certain diuretics; and various beta blockers; (3) dietary risk factors include dietary fat intake per total calories greater than 40%; saturated fat intake per total calories greater than 10%; cholesterol intake greater than 300 mg per day; habitual and excessive alcohol use; and obesity; and (4) non-genetic dyslipidemias.

15 The methods of the present invention can be used effectively in combination with one or more additional active diabetes agents depending on the desired target therapy (see, e.g., Turner, N. et al. Prog. Drug Res. (1998) 51:33-94; Haffner, S. Diabetes Care (1998) 21: 160178; and DeFronzo, R. et al. (eds.), Diabetes Reviews (1997) Vol. 5 No. 4). A number of studies have investigated the benefits of combination therapies with oral agents (see, e.g., Mahler, R., J. Clin. Endocrinol. Metab. (1999)84:1165-71; United Kingdom Prospective Diabetes Study Group: UKPDS 28, Diabetes Care (1998)21:87-92; Bardin, C.W.(ed.), CURRENT THERAPY IN ENDOCRINOLOGY AND METABOLISM, 6th Edition (Mosby--Year Book, Inc., St. Louis, Mo. 1997); Chiasson, J. et al., Ann. Intern. Med. (1994) 121: 928-935; Coniff, R. et al., Clin.Ther. (1997) 19: 16-26; Coniff, R. et al., Am. J. Med. (1995) 98: 443-451; and Iwamoto, Y. et al, Diabet. Med. (1996)13: 365-370; Kwiterovich, P. Am. J. Cardiol (1998) 82(12A):3U-17U). These studies indicate that diabetes and hyperlipidemia modulation can be further improved by the addition of a second agent to therapeutic regimen. As used herein, "IC₅₀" refers to an amount, concentration or dosage of a particular test compound that achieves a 50% inhibition of a maximal response, such as modulation of nuclear receptor, including the LXR α or LXR β activity, in an assay that measures such response.

30 As used herein, "LXR α " (LXR alpha) refers to all mammalian forms of such receptor including, for example, alternative splice isoforms and naturally occurring isoforms. Representative LXR α species include, without limitation the rat (Genbank Accession NM_031627), mouse (Genbank Accession BC012646), and human (GenBank Accession No. U22662) forms of the receptor.

As used herein, "LXR β " (LXR beta) refers to all mammalian forms of such receptor including, for example, alternative splice isoforms and naturally occurring isoforms. Representative LXR β species include, without limitation the rat (GenBank Accession NM_031626), mouse (Genbank Accession NM_009473), and human (GenBank Accession No. U07132) forms of the receptor.

5 As used herein "LXR" or "LXRs" refers to both LXR α and LXR β .

The terms "obese" and "obesity" refers to a Body Mass Index (BMI) greater than 27.8 kg/m² for men and 27.3 kg/m² for women (BMI equals weight (kg)/(height)²(m²).

Use of the Compounds of the Invention

10 The compounds of the invention exhibit valuable pharmacological properties in mammals, and are particularly useful as selective LXR agonists, antagonists, inverse agonists, partial agonists and antagonists, for the treatment, or prevention of diseases associated with, or symptoms arising from the complications of, altered cholesterol transport, cholesterol reverse transport, fatty acid metabolism, cholesterol absorption, cholesterol re-absorption, cholesterol secretion, cholesterol excretion, or cholesterol metabolism.

15 These diseases include, for example, hyperlipidemia, dyslipidemia, hypercholesterolemia, atherosclerosis, atherosclerotic cardiovascular diseases, hyperlipoproteinemia, (see, *e.g.*, Patent Application Publication Nos. WO 00/57915 and WO 00/37077), hyperglycemia, insulin resistance, diabetes, lipodystrophy, obesity, syndrome X (US Patent Application No. 20030073614, International Patent Application Publication No. WO 01/82917), excess lipid deposition in peripheral tissues such as
20 skin (xanthomas) (see, *e.g.*, U.S. Patent Nos. 6,184,215 and 6,187,814), stroke, peripheral occlusive disease, memory loss (*Brain Research* (1997), Vol. 752, pp. 189-196), optic nerve and retinal pathologies (*i.e.*, macular degeneration, retinitis pigmentosa), repair of traumatic damage to the central or peripheral nervous system (*Trends in Neurosciences* (1994), Vol. 17, pp. 525-530), prevention of the degenerative process due to aging (*American Journal of Pathology* (1997), Vol. 151, pp. 1371-1377),
25 Parkinson's disease or Alzheimer's disease (see, *e.g.*, International Patent Application Publication No. WO 00/17334; *Trends in Neurosciences* (1994), Vol. 17, pp. 525-530), prevention of degenerative neuropathies occurring in diseases such as diabetic neuropathies (see, *e.g.*, International Patent Application Publication No. WO 01/82917), multiple sclerosis (*Annals of Clinical Biochem.* (1996), Vol. 33, No. 2, pp. 148-150), and autoimmune diseases (*J. Lipid Res.* (1998), Vol. 39, pp. 1740-1743).

30 Also provided, are methods of increasing the expression of ATP-Binding Cassette (ABCA1), (see, *e.g.*, International Patent Application Publication No. WO 00/78972) thereby increasing reverse cholesterol transport in mammalian cells using the claimed compounds and compositions.

Accordingly in another aspect, the invention also includes methods to remove cholesterol from tissue deposits such as atherosclerotic plaques or xanthomas in a patient with atherosclerosis or atherosclerotic cardiovascular disease manifest by clinical signs of such disease, wherein the methods comprise administering to the patient a therapeutically effective amount of a compound or composition of the present invention. Additionally, the instant invention also provides a method for preventing or reducing the risk of a first or subsequent occurrence of an atherosclerotic cardiovascular disease event including ischemic heart disease, ischemic stroke, multi-infarct dementia, and intermittent claudication comprising the administration of a prophylactically effective amount of a compound or composition of the present invention to a patient at risk for such an event. The patient may already have atherosclerotic cardiovascular disease at the time of administration, or may be at risk for developing it. Risk factors for developing atherosclerotic cardiovascular disease events include increasing age (65 and over), male gender, a family history of atherosclerotic cardiovascular disease events, high blood cholesterol (especially LDL or "bad" cholesterol over 100 mg/dL), cigarette smoking and exposure to tobacco smoke, high blood pressure, diabetes, obesity and physical inactivity.

Also contemplated herein is the use of a compound of the invention, or a pharmaceutically acceptable derivative thereof, in combination with one or more of the following therapeutic agents in treating atherosclerosis: antihyperlipidemic agents, plasma HDL-raising agents, antihypercholesterolemic agents, cholesterol biosynthesis inhibitors (for example, HMG CoA reductase inhibitors, such as lovastatin, simvastatin, pravastatin, fluvastatin, atorvastatin, and rivastatin), acyl-coenzyme A:cholesterol acyltransferase (ACAT) inhibitors, probucol, raloxifene, nicotinic acid, niacinamide, cholesterol absorption inhibitors, HMG-CoA reductase inhibitor-cholesterol absorption inhibitor combinations (*e.g.*, Vytarin), bile acid sequestrants (such as anion exchange resins, or quaternary amines (*e.g.*, cholestyramine or colestipol), low density lipoprotein receptor inducers, clofibrate, fenofibrate, benzofibrate, ciprofibrate, gemfibrozil, vitamin B₆, vitamin B₁₂, anti-oxidant vitamins, β -blockers, anti-diabetes agents, angiotensin II antagonists, angiotensin converting enzyme inhibitors, platelet aggregation inhibitors, fibrinogen receptor antagonists, aspirin or fibric acid derivatives.

In one embodiment compounds of the invention are used in combination with a cholesterol biosynthesis inhibitor, particularly an HMG-CoA reductase inhibitor. The term HMG-CoA reductase inhibitor is intended to include all pharmaceutically acceptable salt, ester, free acid and lactone forms of compounds which have HMG-CoA reductase inhibitory activity and, therefore, the use of such salts, esters, free acids and lactone forms is included within the scope of this invention. Compounds which have inhibitory activity for HMG-CoA reductase can be readily identified using assays well-known in the art. For instance, suitable assays are described or disclosed in U.S. Patent No. 4,231,938 and WO

84/02131. Examples of suitable HMG-CoA reductase inhibitors include, but are not limited to, lovastatin (MEVACOR®; *see*, U.S. Patent No. 4,231,938); simvastatin (ZOCOR®; *see*, U.S. Patent No. 4,444,784); pravastatin sodium (PRAVACHOL®; *see*, U.S. Patent No. 4,346,227); fluvastatin sodium (LESCOL®; *see*, U.S. Patent No. 5,354,772); atorvastatin calcium (LIPITOR®; *see*, U.S. Patent No. 5,273,995) and rosuvastatin (CRESTOR®). The structural formulas of these and additional HMG-CoA reductase inhibitors that can be used in combination with the compounds of the invention are described at page 87 of M. Yalpani, "Cholesterol Lowering Drugs," *Chemistry & Industry*, pp. 85-89 (5 February 1996). In presently preferred embodiments, the HMG-CoA reductase inhibitor is selected from lovastatin and simvastatin.

The compounds of the present invention can also be used in methods for decreasing hyperglycemia and insulin resistance, i.e., in methods for treating diabetes (International Patent Application Publication No. WO 01/82917), and in methods of treatment, prevention, or amelioration of disorders related to, or arising as complications of diabetes, hyperglycemia or insulin resistance including the cluster of disease states, conditions or disorders that make up "Syndrome X" (See US Patent Application 20030073614) comprising the administration of a therapeutically effective amount of a compound or composition of the present invention to a patient in need of such treatment. Additionally, the instant invention also provides a method for preventing or reducing the risk of developing hyperglycemia, insulin resistance, diabetes or syndrome X in a patient, comprising the administration of a prophylactically effective amount of a compound or composition of the present invention to a patient at risk for developing such a condition.

Diabetes mellitus, commonly called diabetes, refers to a disease process derived from multiple causative factors and characterized by elevated levels of plasma glucose, referred to as hyperglycemia. See, e.g., LeRoith, D. et al., (eds.), DIABETES MELLITUS (Lippincott-Raven Publishers, Philadelphia, Pa. U.S.A. 1996). According to the American Diabetes Association, diabetes mellitus is estimated to affect approximately 6% of the world population. Uncontrolled hyperglycemia is associated with increased risk and premature mortality due to an increased risk for macrovascular and macrovascular diseases, including nephropathy, neuropathy, retinopathy, hypertension, cerebrovascular disease and coronary heart disease. Therefore, control of glucose homeostasis is a critically important approach for the treatment of diabetes.

There are two major forms of diabetes: type 1 diabetes (formerly referred to as insulin-dependent diabetes or IDDM); and type 2 diabetes (formerly referred to as noninsulin dependent diabetes or NIDDM).

Type 2 diabetes is a disease characterized by insulin resistance accompanied by relative, rather than absolute, insulin deficiency. Type 2 diabetes can range from predominant insulin resistance with

relative insulin deficiency to predominant insulin deficiency with some insulin resistance. Insulin resistance is the diminished ability of insulin to exert its biological action across a broad range of concentrations. In insulin resistant individuals, the body secretes abnormally high amounts of insulin to compensate for this defect. When inadequate amounts of insulin are present to compensate for insulin resistance and adequate control of glucose, a state of impaired glucose tolerance develops. In a significant number of individuals, insulin secretion declines further and the plasma glucose level rises, resulting in the clinical state of diabetes. Type 2 diabetes can be due to a profound resistance to insulin stimulating regulatory effects on glucose and lipid metabolism in the main insulin-sensitive tissues: muscle, liver and adipose tissue. This resistance to insulin responsiveness results in insufficient insulin activation of glucose uptake, oxidation and storage in muscle and inadequate insulin repression of lipolysis in adipose tissue and of glucose production and secretion in liver. In Type 2 diabetes, free fatty acid levels are often elevated in obese and some non-obese patients and lipid oxidation is increased.

Premature development of atherosclerosis and increased rate of cardiovascular and peripheral vascular diseases are characteristic features of patients with diabetes. Hyperlipidemia is an important precipitating factor for these diseases. Hyperlipidemia is a condition generally characterized by an abnormal increase in serum lipids, e.g., cholesterol and triglyceride, in the bloodstream and is an important risk factor in developing atherosclerosis and heart disease. For a review of disorders of lipid metabolism, see, e.g., Wilson, J. et al., (ed.), Disorders of Lipid Metabolism, Chapter 23, Textbook of Endocrinology, 9th Edition, (W. B. Sanders Company, Philadelphia, Pa. U.S.A. 1998). Hyperlipidemia is usually classified as primary or secondary hyperlipidemia. Primary hyperlipidemia is generally caused by genetic defects, while secondary hyperlipidemia is generally caused by other factors, such as various disease states, drugs, and dietary factors. Alternatively, hyperlipidemia can result from both a combination of primary and secondary causes of hyperlipidemia. Elevated cholesterol levels are associated with a number of disease states, including coronary artery disease, angina pectoris, carotid artery disease, strokes, cerebral arteriosclerosis, and xanthoma.

Dyslipidemia, or abnormal levels of lipoproteins in blood plasma, is a frequent occurrence among diabetics, and has been shown to be one of the main contributors to the increased incidence of coronary events and deaths among diabetic subjects (see, e.g., Joslin, E. Ann. Chim. Med. (1927), Vol. 5, pp. 1061-1079). Epidemiological studies since then have confirmed the association and have shown a several-fold increase in coronary deaths among diabetic subjects when compared with non-diabetic subjects (see, e.g., Garcia, M. J. et al., Diabetes (1974), Vol. 23, pp. 105-11 (1974); and Laakso, M. and Lehto, S., Diabetes Reviews (1997), Vol. 5, No. 4, pp. 294-315). Several lipoprotein abnormalities have been described among diabetic subjects (Howard B., et al., Arteriosclerosis (1978), Vol. 30, pp. 153-162).

The compounds of the invention can also be used effectively in combination with one or more additional active diabetes agents depending on the desired target therapy (see, e.g., Turner, N. et al., Prog. Drug Res. (1998), Vol. 51, pp.33-94; Haffner, S., Diabetes Care (1998), Vol. 21, pp. 160-178; and DeFronzo, R. et al. (eds.), Diabetes Reviews (1997), Vol. 5, No. 4). A number of studies have investigated the benefits of combination therapies with oral agents (see, e.g., Mahler, R., J. Clin. Endocrinol. Metab. (1999), Vol. 84, pp. 1165-71; United Kingdom Prospective Diabetes Study Group: UKPDS 28, Diabetes Care (1998), Vol. 21, pp. 87-92; Bardin, C. W.(ed.), CURRENT THERAPY IN ENDOCRINOLOGY AND METABOLISM, 6th Edition (Mosby--Year Book, Inc., St. Louis, Mo. 1997); Chiasson, J. et al., Ann. Intern. Med. (1994), Vol. 121, pp. 928-935; Coniff, R. et al., Clin. Ther. (1997), Vol.19, pp. 16-26; Coniff, R. et al., Am. J. Med. (1995), Vol. 98, pp. 443-451; Iwamoto, Y. et al., Diabet. Med. (1996), Vol. 13, pp. 365-370; Kwiterovich, P., Am. J. Cardiol (1998), Vol. 82 (12A), pp. 3U-17U). These studies indicate that diabetes and hyperlipidemia modulation can be further improved by the addition of a second agent to therapeutic regimen.

Accordingly, the compounds of the invention may be used in combination with one or more of the following therapeutic agents in treating diabetes: sulfonylureas (such as chlorpropamide, tolbutamide, acetohexamide, tolazamide, glyburide, gliclazide, glynase, glimepiride, and glipizide), biguanides (such as metformin), thiazolidinediones (such as ciglitazone, pioglitazone, and rosiglitazone), and related insulin sensitizers, such as selective and non-selective activators of PPAR α , PPAR β/δ and PPAR γ ; dehydroepiandrosterone (also referred to as DHEA or its conjugated sulphate ester, DHEA-SO₄); antigluco corticoids; TNF α inhibitors; α -glucosidase inhibitors (such as acarbose, miglitol, and voglibose), pramlintide (a synthetic analog of the human hormone amylin), other insulin secretagogues (such as repaglinide, gliquidone, and nateglinide), insulin, as well as therapeutic agents discussed above for treating atherosclerosis.

Further provided by this invention are methods of using the compounds of the invention to treat obesity, as well as the complications of obesity. Obesity is linked to a variety of medical conditions including diabetes and hyperlipidemia. Obesity is also a known risk factor for the development of type 2 diabetes (See, e.g., Barrett-Conner, E., Epidemiol. Rev. (1989), Vol. 11, pp. 172-181; and Knowler, et al., Am. J Clin. Nutr. (1991), Vol. 53, pp. 1543-1551).

In addition, the compounds of the invention can be used in combination with agents used in treated obesity or obesity-related disorders. Such agents, include, but are not limited to, phenylpropanolamine, phentermine, diethylpropion, mazindol, fenfluramine, dexfenfluramine, phentiramine, β_3 adrenoceptor agonist agents; sibutramine, gastrointestinal lipase inhibitors (such as orlistat), and leptins. Other agents used in treating obesity or obesity-related disorders include

neuropeptide Y, enterostatin, cholecystokinin, bombesin, amylin, histamine H₃ receptors, dopamine D₂ receptor modulators, melanocyte stimulating hormone, corticotrophin releasing factor, galanin and gamma amino butyric acid (GABA).

Evaluation of the Use of the Compounds of the Invention

5 Standard physiological, pharmacological and biochemical procedures are available for testing the compounds to identify those that possess biological activities that modulate the activity or nuclear receptors, including the LXRs (LXR α and LXR β). Such assays include, for example, biochemical assays such as binding assays, fluorescence polarization assays, FRET based coactivator recruitment assays (see, generally, Glickman et al., J. Biomolecular Screening (2002), Vol. 7, No. 1, pp. 3-10, as
10 well as cell based assays including the co-transfection assay, the use of LBD-Gal 4 chimeras and protein-protein interaction assays, (see, Lehmann. et al., J. Biol Chem. (1997), Vol. 272, No. 6, pp. 3137-3140.

High throughput screening systems are commercially available (see, e.g., Zymark Corp., Hopkinton, MA; Air Technical Industries, Mentor, OH; Beckman Instruments Inc., Fullerton, CA;
15 Precision Systems, Inc., Natick, MA) that enable these assays to be run in a high throughput mode. These systems typically automate entire procedures, including all sample and reagent pipetting, liquid dispensing timed incubations, and final readings of the microplate in detector(s) appropriate for the assay. These configurable systems provide high throughput and rapid start up as well as a high degree of flexibility and customization. The manufacturers of such systems provide detailed protocols for
20 various high throughput systems. Thus, for example, Zymark Corp. provides technical bulletins describing screening systems for detecting the modulation of gene transcription, ligand binding, and the like.

Assays that do not require washing or liquid separation steps are preferred for such high throughput screening systems and include biochemical assays such as fluorescence polarization assays
25 (see, for example, Owicki, J., Biomol. Screen (2000 October), Vol. 5, No. 5, pp. 297), scintillation proximity assays (SPA) (see, for example, Carpenter et al., Methods Mol. Biol. (2002), Vol 190, pp. 31-49) and fluorescence resonance energy transfer energy transfer (FRET) or time resolved FRET based coactivator recruitment assays (Mukherjee et al., J. Steroid Biochem. Mol. Biol. (2002 July); Vol. 81, No. 3, pp. 217-25; (Zhou et al., Mol. Endocrinol. (1998 October), Vol. 12, No. 10, pp. 1594-604).
30 Generally such assays can be preformed using either the full length receptor, or isolated ligand binding domain (LBD). In the case of LXR α , the LBD comprises amino acids 188-447, for LXR β the LBD comprises amino acids 198-461, and for FXR, the LBD comprises amino acids 244 to 472 of the full length sequence.

If a fluorescently labeled ligand is available, fluorescence polarization assays provide a way of detecting binding of compounds to the nuclear receptor of interest by measuring changes in fluorescence polarization that occur as a result of the displacement of a trace amount of the label ligand by the compound. Additionally this approach can also be used to monitor the ligand dependent association of a
5 fluorescently labeled coactivator peptide to the nuclear receptor of interest to detect ligand binding to the nuclear receptor of interest.

The ability of a compound to bind to a receptor, or heterodimer complex with RXR, can also be measured in a homogeneous assay format by assessing the degree to which the compound can compete off a radiolabelled ligand with known affinity for the receptor using a scintillation proximity assay
10 (SPA). In this approach, the radioactivity emitted by a radiolabelled compound (for example, [^3H] 24,25 Epoxycholesterol) generates an optical signal when it is brought into close proximity to a scintillant such as a YSI-copper containing bead, to which the nuclear receptor is bound. If the radiolabelled compound is displaced from the nuclear receptor the amount of light emitted from the nuclear receptor bound scintillant decreases, and this can be readily detected using standard microplate
15 liquid scintillation plate readers such as, for example, a Wallac MicroBeta reader.

The heterodimerization of LXR with RXR α can also be measured by fluorescence resonance energy transfer (FRET), or time resolved FRET, to monitor the ability of the compounds provided herein to bind to LXR or other nuclear receptors. Both approaches rely upon the fact that energy transfer from a donor molecule to an acceptor molecule only occurs when donor and acceptor are in
20 close proximity. Typically the purified LBD of the nuclear receptor of interest is labeled with biotin then mixed with stoichiometric amounts of europium labeled streptavidin (Wallac Inc.), and the purified LBD of RXR α is labeled with a suitable fluorophore such as CY5TM. Equimolar amounts of each modified LBD are mixed together and allowed to equilibrate for at least 1 hour prior to addition to either variable or constant concentrations of the sample for which the affinity is to be determined. After
25 equilibration, the time-resolved fluorescent signal is quantitated using a fluorescent plate reader. The affinity of the compound can then be estimated from a plot of fluorescence versus concentration of compound added.

This approach can also be exploited to measure the ligand dependent interaction of a co-activator peptide with a nuclear receptor in order to characterize the agonist or antagonist activity of the
30 compounds disclosed herein. Typically the assay in this case involves the use a recombinant Glutathione-S-transferase (GST)-nuclear receptor ligand binding domain (LBD) fusion protein and a synthetic biotinylated peptide sequenced derived from the receptor interacting domain of a co-activator peptide such as the steroid receptor coactivator 1 (SRC-1). Typically GST-LBD is labeled with a

europium chelate (donor) via a europium-tagged anti-GST antibody, and the coactivator peptide is labeled with allophycocyanin via a streptavidin-biotin linkage.

In the presence of an agonist for the nuclear receptor, the peptide is recruited to the GST-LBD bringing europium and allophycocyanin into close proximity to enable energy transfer from the europium chelate to the allophycocyanin. Upon excitation of the complex with light at 340 nm
5 excitation energy absorbed by the europium chelate is transmitted to the allophycocyanin moiety resulting in emission at 665 nm. If the europium chelate is not brought in to close proximity to the allophycocyanin moiety there is little or no energy transfer and excitation of the europium chelate results in emission at 615 nm. Thus the intensity of light emitted at 665 nm gives an indication of the strength
10 of the protein-protein interaction. The activity of a nuclear receptor antagonist can be measured by determining the ability of a compound to competitively inhibit (i.e., IC₅₀) the activity of an agonist for the nuclear receptor

In addition, a variety of cell based assay methodologies may be successfully used in screening assays to identify and profile the specificity of compounds of the present invention. These approaches
15 include the co-transfection assay, translocation assays, complementation assays and the use of gene activation technologies to over express endogenous nuclear receptors.

Three basic variants of the co-transfection assay strategy exist, co-transfection assays using full-length nuclear receptor, co transfection assays using chimeric nuclear receptors comprising the ligand binding domain of the nuclear receptor of interest fused to a heterologous DNA binding domain, and
20 assays based around the use of the mammalian two hybrid assay system.

The basic co-transfection assay is based on the co-transfection into the cell of an expression plasmid to express the nuclear receptor of interest in the cell with a reporter plasmid comprising a reporter gene whose expression is under the control of DNA sequence that is capable of interacting with that nuclear receptor (see, for example, US Patents Nos. 5,071,773; 5,298,429 and 6,416,957).
25 Treatment of the transfected cells with an agonist for the nuclear receptor increases the transcriptional activity of that receptor which is reflected by an increase in expression of the reporter gene which may be measured by a variety of standard procedures.

For those receptors that function as heterodimers with RXR, such as the LXRs, the co-transfection assay typically includes the use of expression plasmids for both the nuclear receptor of interest and RXR. Typical co-transfection assays require access to the full length nuclear receptor and
30 suitable response elements that provide sufficient screening sensitivity and specificity to the nuclear receptor of interest.

Typically, the expression plasmid comprises: (1) a promoter, such as an SV40 early region promoter, HSV tk promoter or phosphoglycerate kinase (pgk) promoter, CMV promoter, Sro α promoter or other suitable control elements known in the art, (2) a cloned polynucleotide sequence, such as a cDNA encoding a receptor, co-factor, or fragment thereof, ligated to the promoter in sense orientation so that transcription from the promoter will produce a RNA that encodes a functional protein, and (3) a polyadenylation sequence. For example and not limitation, an expression cassette of the invention may comprise the cDNA expression cloning vectors, or other preferred expression vectors known and commercially available from vendors such as Invitrogen, (CA), Stratagene, (CA) or Clontech, (CA). Alternatively expression vectors developed by academic groups such as the pCMX vectors originally developed in the Evans lab (Willey et al. Genes & Development 9 1033-1045 (1995)) may also be used.

The transcriptional regulatory sequences in an expression cassette are selected by the practitioner based on the intended application; depending upon the specific use, transcription regulation can employ inducible, repressible, constitutive, cell-type specific, developmental stage-specific, sex-specific, or other desired type of promoter or control sequence.

Alternatively, the expression plasmid may comprise an activation sequence to activate or increase the expression of an endogenous chromosomal sequence. Such activation sequences include for example, a synthetic zinc finger motif (for example, see US Patents 6,534,261 and 6,503,717) or a strong promoter or enhancer sequence together with a targeting sequence to enable homologous or non-homologous recombination of the activating sequence upstream of the gene of interest.

Genes encoding the following full-length previously described proteins, which are suitable for use in the co-transfection studies and profiling the compounds described herein, include human LXR α (accession U22662), human LXR β (accession U07132), rat FXR (accession U18374), human FXR (accession NM_005123), human RXR α (accession NM_002957), human RXR β (accession XM_042579), human RXR γ (accession XM_053680), human PPAR α (accession X57638) and human PPAR δ (accession U10375). All accession numbers in this application refer to GenBank accession numbers.

Reporter plasmids may be constructed using standard molecular biological techniques by placing cDNA encoding for the reporter gene downstream from a suitable minimal promoter. For example luciferase reporter plasmids may be constructed by placing cDNA encoding firefly luciferase (typically with SV40 small t intron and poly-A tail, (de Wet et al., (1987) Mol. Cell. Biol. 7 725-735) down stream from the herpes virus thymidine kinase promoter (located at nucleotides residues-105 to +51 of the thymidine kinase nucleotide sequence, obtained for example, from the plasmid pBLCAT2

(Luckow & Schutz (1987) Nucl. Acid. Res.15 5490-5494)) which is linked in turn to the appropriate response element (RE).

The choice of hormone response element is dependent upon the type of assay to be used. In the case of the use of the full-length LXR α or LXR β a reporter plasmid comprising a known LXR RE would typically be used, such as for example in a reporter plasmid such as LXREx1-tk-luciferase, (see U.S. patent No. 5,747,661, which is hereby incorporated by reference). In the case of a LXR α or LXR β -LBD-Gal4 fusion, GAL4 Upstream Activating Sequences (UAS) would be used. Typically the GAL4 UAS would comprise the sequence 5'CGGRNNRCYNYNCNCCG-3', where Y = C or T, R = A or G, and N = A, C, T or G, and would be present as a tandem repeat of 4 copies.

Numerous methods of co-transfecting the expression and reporter plasmids are known to those of skill in the art and may be used for the co-transfection assay to introduce the plasmids into a suitable cell type. Typically such a cell will not endogenously express nuclear receptors that interact with the response elements used in the reporter plasmid.

Numerous reporter gene systems are known in the art and include, for example, alkaline phosphatase (see, Berger, J., et al., Gene (1988), Vol. 66, pp. 1-10; and Kain, S.R., Methods. Mol. Biol. (1997), Vol. 63, pp. 49-60), β -galactosidase (See, U.S. Patent No. 5,070,012, issued Dec. 3, 1991 to Nolan et al., and Bronstein, I., et al., J. Chemilum. Biolum. (1989), Vol. 4, pp. 99-111), chloramphenicol acetyltransferase (See, Gorman et al., Mol. Cell Biol. (1982), Vol. 2, pp. 1044-51), β -glucuronidase, peroxidase, β -lactamase (U.S. Patent Nos. 5,741,657 and 5,955,604), catalytic antibodies, luciferases (U.S. Patents 5,221,623; 5,683,888; 5,674,713; 5,650,289; and 5,843,746) and naturally fluorescent proteins (Tsien, R.Y., Annu. Rev. Biochem. (1998), Vol. 67, pp. 509-44).

The use of chimeras comprising the ligand binding domain (LBD) of the nuclear receptor of interest to a heterologous DNA binding domain (DBD) expands the versatility of cell based assays by directing activation of the nuclear receptor in question to defined DNA binding elements recognized by defined DNA binding domain (see WO95/18380). This assay expands the utility of cell based co-transfection assays in cases where the biological response or screening window using the native DNA binding domain is not satisfactory.

In general the methodology is similar to that used with the basic co-transfection assay, except that a chimeric construct is used in place of the full length nuclear receptor. As with the full length nuclear receptor, treatment of the transfected cells with an agonist for the nuclear receptor LBD increases the transcriptional activity of the heterologous DNA binding domain which is reflected by an increase in expression of the reporter gene as described above. Typically for such chimeric constructs,

the DNA binding domains from defined nuclear receptors, or from yeast or bacterially derived transcriptional regulators such as members of the GAL 4 and Lex A / Umod super families are used.

A third cell based assay of utility for screening compounds of the present invention is a mammalian two-hybrid assay that measures the ability of the nuclear hormone receptor to interact with a
5 cofactor in the presence of a ligand (see, for example, US Patent Nos. US 5,667,973, 5,283,173 and 5,468,614). The basic approach is to create three plasmid constructs that enable the interaction of the nuclear receptor with the interacting protein to be coupled to a transcriptional readout within a living cell. The first construct is an expression plasmid for expressing a fusion protein comprising the
10 interacting protein, or a portion of that protein containing the interacting domain, fused to a GAL4 DNA binding domain. The second expression plasmid comprises DNA encoding the nuclear receptor of interest fused to a strong transcription activation domain such as VP16, and the third construct comprises the reporter plasmid comprising a reporter gene with a minimal promoter and GAL4
upstream activating sequences.

Once all three plasmids are introduced into a cell, the GAL4 DNA binding domain encoded in
15 the first construct allows for specific binding of the fusion protein to GAL4 sites upstream of a minimal promoter. However because the GAL4 DNA binding domain typically has no strong transcriptional activation properties in isolation, expression of the reporter gene occurs only at a low level. In the presence of a ligand, the nuclear receptor-VP16 fusion protein can bind to the GAL4-interacting protein fusion protein bringing the strong transcriptional activator VP16 in close proximity to the GAL4 binding
20 sites and minimal promoter region of the reporter gene. This interaction significantly enhances the transcription of the reporter gene which can be measured for various reporter genes as described above. Transcription of the reporter gene is thus driven by the interaction of the interacting protein and nuclear receptor of interest in a ligand dependent fashion.

Any compound which is a candidate for activation of LXR α or LXR β may be tested by these
25 methods. Generally, compounds are tested at several different concentrations to optimize the chances that activation of the receptor will be detected and recognized if present. Typically assays are performed in triplicate and vary within experimental error by less than 15%. each experiment is typically repeated three or more times with similar results.

Activity of the reporter gene can be conveniently normalized to the internal control and the data
30 plotted as fold activation relative to untreated cells. A positive control compound (agonist) may be included along with DMSO as high and low controls for normalization of the assay data. Similarly, antagonist activity can be measured by determining the ability of a compound to competitively inhibit the activity of an agonist.

Additionally the compounds and compositions can be evaluated for their ability to increase or decrease the expression of genes known to be modulated by LXR α or LXR β and other nuclear receptors *in vivo*, using Northern-blot, RT PCR or oligonucleotide microarray analysis to analyze RNA levels. Western-blot analysis can be used to measure expression of proteins encoded by LXR target genes. Genes that are known to be regulated by the LXRs include the ATP binding cassette transporters ABCA1, ABCG1, ABCG5, ABCG8, the sterol response element binding protein 1c (SREBP1c) gene, stearoyl CoA desaturase 1 (SCD-1) and the apolipoprotein apoE gene (ApoE).

Established animal models exist for a number of diseases of direct relevance to the claimed compounds and these can be used to further profile and characterize the claimed compounds. These model systems include diabetic dislipidemia using Zucker (fa/fa) rats or (db/db) mice, spontaneous hyperlipidemia using apolipoprotein E deficient mice (ApoE^{-/-}), diet-induced hyperlipidemia, using low density lipoprotein receptor deficient mice (LDLR^{-/-}) and atherosclerosis using both the Apo E^{-/-} and LDLR^{-/-} mice fed a western diet. (21% fat, 0.05% cholesterol). Additionally LXR or FXR animal models (e.g., knockout mice) can be used to further evaluate the present compounds and compositions *in vivo* (see, for example, Peet, et al., Cell (1998), Vol. 93, pp. 693-704, and Sinal, et al., Cell (2000), Vol. 102, pp. 731-744).

Administration of the Compounds of the Invention

Administration of the compounds of the invention, or their pharmaceutically acceptable salts, in pure form or in an appropriate pharmaceutical composition, can be carried out via any of the accepted modes of administration of agents for serving similar utilities. The pharmaceutical compositions of the invention can be prepared by combining a compound of the invention with an appropriate pharmaceutically acceptable carrier, diluent or excipient, and may be formulated into preparations in solid, semi-solid, liquid or gaseous forms, such as tablets, capsules, powders, granules, ointments, solutions, suppositories, injections, inhalants, gels, microspheres, and aerosols. Typical routes of administering such pharmaceutical compositions include, without limitation, oral, topical, transdermal, inhalation, parenteral, sublingual, rectal, vaginal, and intranasal. The term parenteral as used herein includes subcutaneous injections, intravenous, intramuscular, intrasternal injection or infusion techniques. Pharmaceutical compositions of the invention are formulated so as to allow the active ingredients contained therein to be bioavailable upon administration of the composition to a patient. Compositions that will be administered to a subject or patient take the form of one or more dosage units, where for example, a tablet may be a single dosage unit, and a container of a compound of the invention in aerosol form may hold a plurality of dosage units. Actual methods of preparing such dosage forms are known, or will be apparent, to those skilled in this art; for example, see Remington's Pharmaceutical

Sciences, 18th Ed., (Mack Publishing Company, Easton, Pennsylvania, 1990). The composition to be administered will, in any event, contain a therapeutically effective amount of a compound of the invention, or a pharmaceutically acceptable salt thereof, for treatment of a disease-state associated with the activity of a nuclear receptor in accordance with the teachings of this invention.

5 A pharmaceutical composition of the invention may be in the form of a solid or liquid. In one aspect, the carrier(s) are particulate, so that the compositions are, for example, in tablet or powder form. The carrier(s) may be liquid, with the compositions being, for example, an oral syrup, injectable liquid or an aerosol, which is useful in, e.g., inhalatory administration.

10 When intended for oral administration, the pharmaceutical composition is preferably in either solid or liquid form, where semi-solid, semi-liquid, suspension and gel forms are included within the forms considered herein as either solid or liquid.

15 As a solid composition for oral administration, the pharmaceutical composition may be formulated into a powder, granule, compressed tablet, pill, capsule, chewing gum, wafer or the like form. Such a solid composition will typically contain one or more inert diluents or edible carriers. In addition, one or more of the following may be present: binders such as carboxymethylcellulose, ethyl cellulose, microcrystalline cellulose, gum tragacanth or gelatin; excipients such as starch, lactose or dextrins, disintegrating agents such as alginic acid, sodium alginate, Primogel, corn starch and the like; lubricants such as magnesium stearate or Sterotex; glidants such as colloidal silicon dioxide; sweetening agents such as sucrose or saccharin; a flavoring agent such as peppermint, methyl salicylate or orange
20 flavoring; and a coloring agent.

When the pharmaceutical composition is in the form of a capsule, e.g., a gelatin capsule, it may contain, in addition to materials of the above type, a liquid carrier such as polyethylene glycol or oil.

25 The pharmaceutical composition may be in the form of a liquid, e.g., an elixir, syrup, solution, emulsion or suspension. The liquid may be for oral administration or for delivery by injection, as two examples. When intended for oral administration, preferred composition contain, in addition to the present compounds, one or more of a sweetening agent, preservatives, dye/colorant and flavor enhancer. In a composition intended to be administered by injection, one or more of a surfactant, preservative, wetting agent, dispersing agent, suspending agent, buffer, stabilizer and isotonic agent may be included.

30 The liquid pharmaceutical compositions of the invention, whether they be solutions, suspensions or other like form, may include one or more of the following adjuvants: sterile diluents such as water for injection, saline solution, preferably physiological saline, Ringer's solution, isotonic sodium chloride, fixed oils such as synthetic mono or diglycerides which may serve as the solvent or suspending medium, polyethylene glycols, glycerin, propylene glycol or other solvents; antibacterial agents such as benzyl alcohol or methyl paraben; antioxidants such as ascorbic acid or sodium bisulfite;

chelating agents such as ethylenediaminetetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. The parenteral preparation can be enclosed in ampoules, disposable syringes or multiple dose vials made of glass or plastic. Physiological saline is a preferred adjuvant. An injectable pharmaceutical composition is preferably sterile.

A liquid pharmaceutical composition of the invention intended for either parenteral or oral administration should contain an amount of a compound of the invention such that a suitable dosage will be obtained. Typically, this amount is at least 0.01% of a compound of the invention in the composition. When intended for oral administration, this amount may be varied to be between 0.1 and about 70% of the weight of the composition. Preferred oral pharmaceutical compositions contain between about 4% and about 50% of the compound of the invention. Preferred pharmaceutical compositions and preparations according to the present invention are prepared so that a parenteral dosage unit contains between 0.01 to 1% by weight of the compound of the invention.

The pharmaceutical composition of the invention may be intended for topical administration, in which case the carrier may suitably comprise a solution, emulsion, ointment or gel base. The base, for example, may comprise one or more of the following: petrolatum, lanolin, polyethylene glycols, bee wax, mineral oil, diluents such as water and alcohol, and emulsifiers and stabilizers. Thickening agents may be present in a pharmaceutical composition for topical administration. If intended for transdermal administration, the composition may include a transdermal patch or iontophoresis device. Topical formulations may contain a concentration of the compound of the invention from about 0.1 to about 10% w/v (weight per unit volume).

The pharmaceutical composition of the invention may be intended for rectal administration, in the form, e.g., of a suppository, which will melt in the rectum and release the drug. The composition for rectal administration may contain an oleaginous base as a suitable nonirritating excipient. Such bases include, without limitation, lanolin, cocoa butter and polyethylene glycol.

The pharmaceutical composition of the invention may include various materials, which modify the physical form of a solid or liquid dosage unit. For example, the composition may include materials that form a coating shell around the active ingredients. The materials that form the coating shell are typically inert, and may be selected from, for example, sugar, shellac, and other enteric coating agents. Alternatively, the active ingredients may be encased in a gelatin capsule.

The pharmaceutical composition of the invention in solid or liquid form may include an agent that binds to the compound of the invention and thereby assists in the delivery of the compound. Suitable agents that may act in this capacity include a monoclonal or polyclonal antibody, a protein or a liposome.

The pharmaceutical composition of the invention may consist of dosage units that can be administered as an aerosol. The term aerosol is used to denote a variety of systems ranging from those of colloidal nature to systems consisting of pressurized packages. Delivery may be by a liquefied or compressed gas or by a suitable pump system that dispenses the active ingredients. Aerosols of compounds of the invention may be delivered in single phase, bi-phasic, or tri-phasic systems in order to deliver the active ingredient(s). Delivery of the aerosol includes the necessary container, activators, valves, subcontainers, and the like, which together may form a kit. One skilled in the art, without undue experimentation may determine preferred aerosols.

The pharmaceutical compositions of the invention may be prepared by methodology well known in the pharmaceutical art. For example, a pharmaceutical composition intended to be administered by injection can be prepared by combining a compound of the invention with sterile, distilled water so as to form a solution. A surfactant may be added to facilitate the formation of a homogeneous solution or suspension. Surfactants are compounds that non-covalently interact with the compound of the invention so as to facilitate dissolution or homogeneous suspension of the compound in the aqueous delivery system.

The compounds of the invention, or their pharmaceutically acceptable salts, are administered in a therapeutically effective amount, which will vary depending upon a variety of factors including the activity of the specific compound employed; the metabolic stability and length of action of the compound; the age, body weight, general health, sex, and diet of the patient; the mode and time of administration; the rate of excretion; the drug combination; the severity of the particular disorder or condition; and the subject undergoing therapy. Generally, a therapeutically effective daily dose is from about 0.1 mg to about 20 mg/kg of body weight per day of a compound of the invention, or a pharmaceutically acceptable salt thereof; preferably, from about 0.1 mg to about 10 mg/kg of body weight per day; and most preferably, from about 0.1 mg to about 7.5 mg/kg of body weight per day.

Compounds of the invention, or pharmaceutically acceptable derivatives thereof, may also be administered simultaneously with, prior to, or after administration of one or more of therapeutic agents described above in the Utility of the Compounds of the Invention. Such combination therapy includes administration of a single pharmaceutical dosage formulation which contains a compound of the invention and one or more additional active agents, as well as administration of the compound of the invention and each active agent in its own separate pharmaceutical dosage formulation. For example, a compound of the invention and an HMG-CoA reductase inhibitor can be administered to the patient together in a single oral dosage composition such as a tablet or capsule, or each agent administered in separate oral dosage formulations. Where separate dosage formulations are used, the compounds of the invention and one or more additional active agents can be administered at essentially the same time, i.e.,

concurrently, or at separately staggered times, i.e., sequentially; combination therapy is understood to include all these regimens.

Dosage information for HMG-CoA reductase inhibitors is well known in the art, since several HMG-CoA reductase inhibitors are marketed in the U.S. In particular, the daily dosage amounts of the HMG-CoA reductase inhibitor may be the same or similar to those amounts which are employed for anti-hypercholesterolemic treatment and which are described in the Physicians' Desk Reference (PDR). For example, see the 50th Ed. of the PDR, 1996 (Medical Economics Co); in particular, see at page 216 the heading "Hypolipidemics," sub-heading "HMG-CoA Reductase Inhibitors," and the reference pages cited therein. Preferably, the oral dosage amount of HMG-CoA reductase inhibitor is from about 1 to 200 mg/day and, more preferably, from about 5 to 160 mg/day. However, dosage amounts will vary depending on the potency of the specific HMG-CoA reductase inhibitor used as well as other factors as noted above. An HMG-CoA reductase inhibitor which has sufficiently greater potency may be given in sub-milligram daily dosages.

As examples, the daily dosage amount for simvastatin may be selected from 5 mg, 10 mg, 20 mg, 40 mg, 80 mg and 160 mg for lovastatin, 10 mg, 20 mg, 40 mg and 80 mg; for fluvastatin sodium, 20 mg, 40 mg and 80 mg; and for pravastatin sodium, 10 mg, 20 mg, and 40 mg. The daily dosage amount for atorvastatin calcium may be in the range of from 1 mg to 160 mg and, more particularly, from 5 mg to 80 mg. Oral administration may be in a single or divided doses of two, three, or four times daily, although a single daily dose of the HMG-CoA reductase inhibitor is preferred.

Preparation of the Compounds of the Invention

It is understood that in the following description, combinations of substituents and/or variables of the depicted formulae are permissible only if such contributions result in stable compounds.

It will also be appreciated by those skilled in the art that in the processes described below the functional groups of intermediate compounds may need to be protected by suitable protecting groups. Such functional groups include hydroxy, amino, mercapto and carboxylic acid. Suitable protecting groups for hydroxy include trialkylsilyl or diarylalkylsilyl (e.g., *t*-butyldimethylsilyl, *t*-butyldiphenylsilyl or trimethylsilyl), tetrahydropyranyl, benzyl, and the like. Suitable protecting groups for 1,2-dihydroxys include ketal- and acetal-forming groups. Suitable protecting groups for amino, amidino and guanidino include *t*-butoxycarbonyl, benzyloxycarbonyl, and the like. Suitable protecting groups for mercapto include -C(O)-R (where R is alkyl, aryl or aralkyl), *p*-methoxybenzyl, trityl and the like. Suitable protecting groups for carboxylic acid include alkyl, aryl or aralkyl esters.

Protecting groups may be added or removed in accordance with standard techniques, which are well-known to those skilled in the art and as described herein. The use of protecting groups is described

in detail in Green, T.W. and P.G.M. Wutz, Protective Groups in Organic Synthesis (1991), 2nd Ed., Wiley-Interscience. The protecting group may also be a polymer resin such as a Wang resin or a 2-chlorotrityl chloride resin.

It will also be appreciated by those skilled in the art, although such protected derivatives of compounds of the invention, as described above in the Summary of the Invention and first aspect of the invention, may not possess pharmacological activity as such, they may be administered to a mammal having a disease associated with defects in cholesterol transport, glucose metabolism, fatty acid metabolism and cholesterol metabolism, and thereafter metabolized in the body to form compounds of the invention which are pharmacologically active. Such derivatives may therefore be described as “prodrugs”. All prodrugs of compounds of the invention are included within the scope of the invention.

It is understood that one of ordinary skill in the art would be able to make the compounds of the invention not specifically prepared herein in light of the following disclosure, including the Preparations and Examples, and information known to those of ordinary skill in the chemical synthesis field.

Starting materials in the synthesis examples provided herein are either available from commercial sources or via literature procedures or by methods disclosed herein. All commercially available compounds were used without further purification unless otherwise indicated. Deuterated solvents such as DMSO or CDCl₃ (99.8% D, Cambridge Isotope Laboratories) were used in all experiments as indicated. ¹H NMR spectra were recorded on a Bruker Avance 400 MHz NMR spectrometer. Significant peaks are tabulated and typically include: number of protons, multiplicity (s, singlet; d, double; t, triplet; q, quartet; m, multiplet; br s, broad singlet) and coupling constant(s) in Hertz. Chemical shifts are reported as parts per million (δ) relative to tetramethylsilane. Mass spectra were recorded on a Perkin-Elmer SCIEX HPLC/MS instrument using reverse-phase conditions (acetonitrile/water, 0.05% trifluoroacetic acid) and electrospray (ES) ionization. Abbreviations used in the examples below have their accepted meanings in the chemical literature. For example, CH₂Cl₂ (dichloromethane), C₆H₆ (benzene), TFA (trifluoroacetic acid), EtOAc (Ethyl Acetate), Et₂O (diethyl ether), DMAP (4-dimethylaminopyridine), DMF (N,N-dimethylformamide) and THF (tetrahydrofuran). Flash chromatography was performed using Merck Silica Gel 60 (230-400 mesh).

For purposes of illustration only, most of the formulae in the following Reaction Schemes are directed to specific embodiments of the compounds of invention. However, one of ordinary skill in the art, in view of the teachings of this specification would reasonably be expected to be able to prepare all the compounds of the invention in the Summary of the Invention and first aspect of the invention utilizing the appropriately-substituted starting materials and methods known to one skilled in the art.

In the general descriptions immediately following each Reaction Scheme, the phrase “standard isolation procedures” is meant to include one or more of the following techniques familiar to one

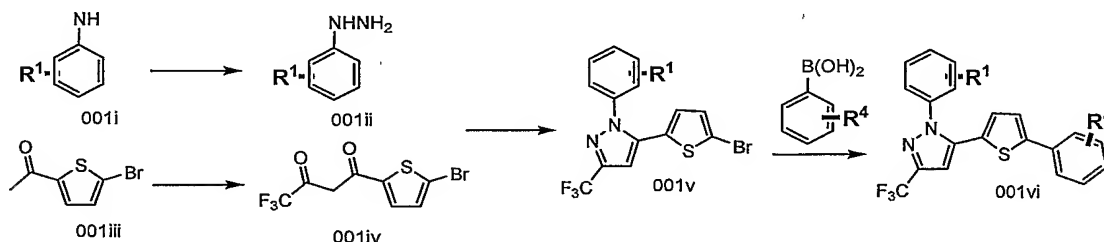
schooled in the art of organic chemistry: organic extraction, washing of organic solutions with dilute aqueous acid or base, use of drying agents, filtration, concentration *in vacuo*, followed by purification using distillation, crystallization, or solid-liquid phase chromatography. The phrase “elevated temperature” refers to a temperature above ambient temperature and the phrase “reduced temperature” refers to a temperature below ambient temperature.

The following specific Preparations (for intermediates) and Examples (for compounds, pharmaceutical compositions and methods of use of the invention) are provided as a guide to assist in the practice of the invention, and are not intended as a limitation on the scope of the invention. Without further description, it is believed that one of ordinary skill in the art can, using the preceding description and the following illustrative examples, make and utilize the compounds of the present invention and practice the claimed methods. It should be understood that the foregoing discussion and examples merely present a detailed description of certain preferred embodiments. It will be apparent to one of ordinary skill in the art that various modifications and equivalents can be made without departing from the spirit and scope of the invention.

SYNTHESIS

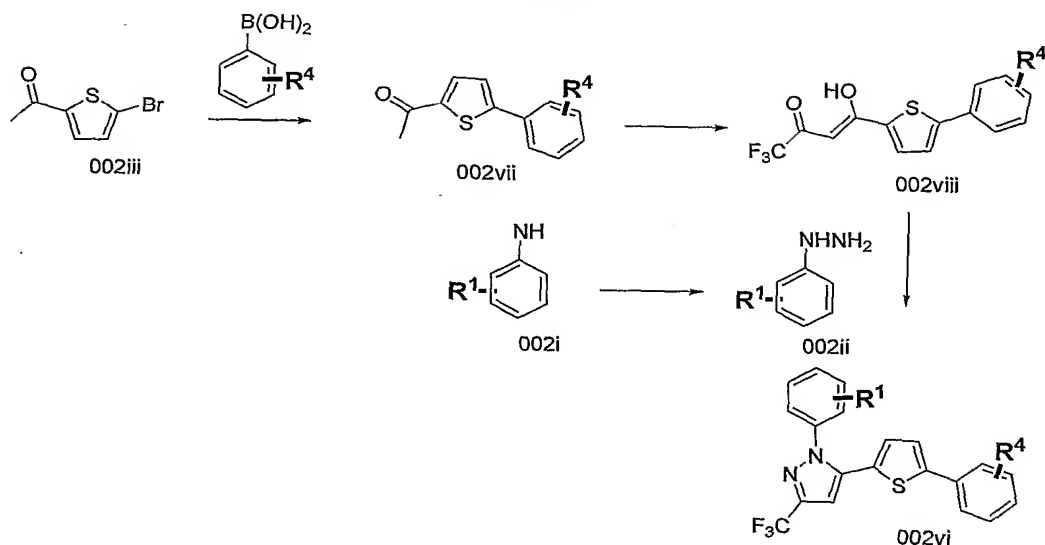
Pyrazole Ia

Scheme 1



The method for preparing compounds of the invention is illustrated in Scheme 1. Amines (001i) can be converted to hydrazines (001ii) using standard techniques that are readily apparent to one skilled in the arts. Acetophenones (001iii) can be converted to diketones (001iv) via a Claisen condensation. Hydrazines (001ii) and diketones (001iv) can be condensed to form pyrazoles (001v) thermally or with the aid of catalysts such as acid. Aryl bromides such as (001v) can then be elaborated further by an arylation reaction such as a Suzuki reaction to form a tetra-aryl ring system (001vi).

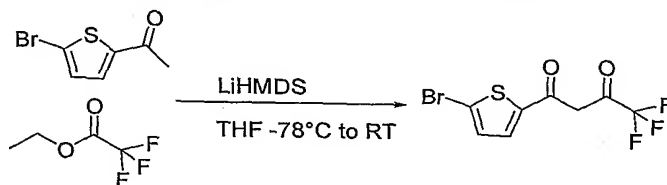
An alternative means of preparing compounds of the present invention is shown in Scheme 2. Thiophene ketones (002iii) can be elaborated upon by addition of substituents such as aryl rings and these (002vii) elaborated ketones can then be converted to diketones (002viii). Diketones (002viii) and hydrazines (002ii) can condense to form pyrazoles (002vi) either thermally or with the aid of catalyst.

Scheme 2**Example 1**

3-{5-[2-(2,5-Dichloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-benzenesulfonamide

Example 1a

Preparation of 1-(5-Bromo-thiophen-2-yl)-4,4,4-trifluoro-butane-1,3-dione

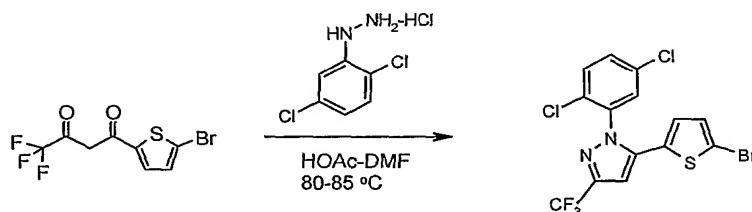


In a 2-L, three-necked round bottom flask fitted with a 250 mL pressure equalizing addition funnel, an overhead stirrer, and a thermocouple was placed lithium hexamethyldisilazide (500 mL of a 1.0 M solution in THF, 500 mmol) and THF (100 mL). A solution of 1-(5-bromo-thiophen-2-yl)-ethanone (75.5 g, 368 mmol) was prepared in THF (350 mL). This solution was added via cannula to the addition funnel in portions and added slowly from the addition funnel to the reaction flask at a rate such that the internal temperature was $< -70^{\circ}\text{C}$ (~40 minutes). The ketone flask and addition funnel were then rinsed with additional THF (25 mL) to insure complete transfer. After stirring for 15 minutes at $< -70^{\circ}\text{C}$, ethyl trifluoroacetate (66 mL, 553 mmol) was added from the addition funnel as a solution in THF (100 mL) over ~45 minutes. The pale brown reaction was allowed to warm to ambient temperature overnight. After stirring for ~16 hours the reaction was cooled in an ice bath and carefully quenched by the addition of 3N aqueous HCl (150 mL). The quench was highly exothermic. After the completion of the HCl addition the basic aqueous layer was separated and the organic layer was concentrated under reduced pressure to remove most of the THF. The resulting brown biphasic mixture

was combined with the aqueous layer and diluted with Et₂O (~700 mL). The mixture was acidified by the addition of 3N HCl to pH < 3. The layers were separated and the acidic aqueous was extracted with Et₂O (3 x 150 mL). The combined organic layers were dried over Na₂SO₄, filtered, and concentrated under reduced pressure to afford a brown oil. This oil was taken up in benzene and concentrated under reduced pressure to remove any residual water present. The resulting oil was pumped down under high vacuum and seeded with authentic product to afford 1-(5-bromo-thiophen-2-yl)-4,4,4-trifluoro-butane-1,3-dione (111.7 g, 100.8 % yield) as a pale brown solid. ¹H-NMR (400 MHz, CDCl₃): δ 14.5 (broad s, 1H), 7.57 (d, *J* = 4.0 Hz, 1H), 7.17 (d, *J* = 4.0 Hz, 1H), 6.37 (s, 1H).

Example 1b

Preparation of 5-(5-Bromo-thiophen-2-yl)-1-(2,5-dichloro-phenyl)-3-trifluoromethyl-1H-pyrazole



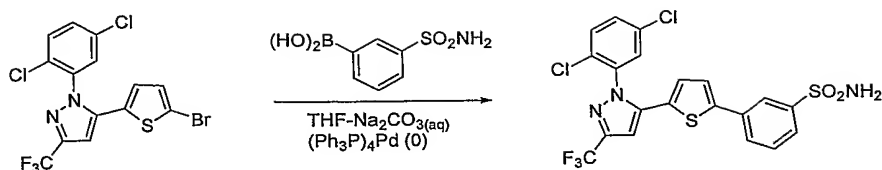
Into a 250 mL flask was weighted 2.01 g (9.41 mmol) of 2,5-dichlorophenylhydrazine hydrochloride (Aldrich), 1.79 g (5.95 mmol) of diketone, and 10 mL of glacial acetic acid. The suspension was stirred and heated at 80-85 °C and 5.0 mL of DMF was added to effect dissolution. The resulting solution was heated at 80-85 °C for 1 h then was cooled and washed into a separatory funnel with 150 mL of ethyl acetate and 250 mL of water. The ethyl acetate was separated, washed with 200 mL of 1 M NaOH, 50 mL of brine, then was dried (Na₂SO₄), and was concentrated *in vacuo*. The resulting yellow oil was treated with 200 mL of hexanes and a precipitate formed. The precipitate was removed by filtration and the filtrate was concentrated *in vacuo* affording the desired product as a faintly yellow solid (2.7g) which was used in the next transformation without further purification. ¹H NMR (400 MHz, CDCl₃): δ 7.55 (s, 1H), 7.49 (m, 2H), 6.94 (d, *J* = 4 Hz, 1H), 6.81 (s, 1H), 6.69 (d, *J* = 4 Hz, 1H).

The following compounds are prepared essentially according to the previous examples:

- 1-(2-chlorophenyl)-5-{3-[(phenylmethyl)oxy]phenyl}-3-(trifluoromethyl)-1H-pyrazole;
MS(ES): = 428.5[M+H]⁺;
- 1-(2-chlorophenyl)-5-{4-[(phenylmethyl)oxy]phenyl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 429 [M+H]⁺.

Example 1c

Preparation of 3-{5-[2-(2,5-Dichloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-benzenesulfonamide



Into a 50 mL flask was weighed 439 mg of bromide (993 μmol), 207.9 mg of boronic acid (1.03 mmol), and 5 mL of THF. The resulting solution was placed in an oil bath and was heated at 80-85 $^{\circ}\text{C}$. As the solution approached reflux c.a. 50 mg of tetrakis(triphenylphosphine)palladium (0) was added followed by 500 L of 1.0 M sodium carbonate. The reaction was maintained at reflux for 2 h then was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, dried (Na_2SO_4), and was concentrated *in vacuo*. The reaction was purified by silica gel flash chromatography (Jones Flashmaster, 50 g SiO_2 , gradient elution from 100% hexanes to 40% ethyl acetate over 45 minutes). Appropriate fractions were combined and concentrated *in vacuo* affording the product as a faintly yellow solid, yield: 131 mg (25 %). ^1H NMR (400 MHz, $\text{DMSO}-d_6$): δ 8.20 (s, 1H), 7.98 (s, 1H), 7.87 (m, 2H), 7.82 (t, $J = 8$ Hz, 2H), 7.67 (d, $J = 8$ Hz, 1H), 7.64 (d, $J = 4$ Hz, 1H), 7.56 (s, 1H), 7.49 (s, 2H), 7.32 (d, $J = 4$ Hz, 1H).

The following compounds are prepared essentially according to the previous examples:

- 1-(2,5-dichlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-3-(trifluoromethyl)-1H-pyrazole, MS (ES): 547 $[\text{M}+\text{H}]^+$;
- 5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylthio)pyridine, MS (ES): 466.2 $[\text{M}+\text{H}]^+$;
- 5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(ethylthio)-3-methylpyridine; MS (ES): 480.2 $[\text{M}+\text{H}]^+$;
- 3-methyl-5-(5-{1-[2-(methyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl)-2-(methylthio)pyridine, MS (ES): 462.3 $[\text{M}+\text{H}]^+$;
- 4-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)morpholine; MS (ES): 491.2, $[\text{M}+\text{H}]^+$;
- 1,1-dimethylethyl 4-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine-1-carboxylate, MS (ES): 590.2 $[\text{M}+\text{H}]^+$;
- methyl (5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)acetate; MS (ES): 478.1 $[\text{M}+\text{H}]^+$;
- methyl (4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methylphenyl)acetate; MS (ES): 490.0 $[\text{M}+\text{H}]^+$;

- methyl (3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenyl)acetate; MS (ES): 495.2 $[M+H]^+$;
- methyl 2-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)-2-methylpropanoate; MS (ES): 506.3 $[M+H]^+$;
- 5 • 3-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propanoic acid; MS (ES): 477.0 $[M+H]^+$;
- 3-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propanoic acid; MS (ES): 477.3 $[M+H]^+$;
- 4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid; MS (ES):
10 449.0 $[M+H]^+$;
- 3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid; MS (ES): 449.0 $[M+H]^+$, 471.0 $[M+Na]^+$;
- (2E)-3-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)prop-2-enoic acid; MS (ES): 474.9 $[M+H]^+$, 497.3 $[M+Na]^+$;
- 15 • [4-fluoro-3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetic acid; MS (ES): 516.3 $[M+H]^+$;
- methyl [3-methyl-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetate; MS (ES): 526.5 $[M+H]^+$;
- 2-(ethylthio)-3-methyl-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)pyridine; MS (ES): 514.2 $[M+H]^+$;
- 20 • 5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylthio)pyridine; MS (ES): 500.4, $[M+H]^+$;
- 3-methyl-2-(methylthio)-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)pyridine; MS (ES): 500.4 $[M+H]^+$;
- 25 • 5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-3-methyl-2-(methylthio)pyridine; MS (ES): 500.3 $[M+H]^+$;
- 1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)-5-(1-methylethyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 539.4 $[M+H]^+$;
- (3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid, MS
30 (ES): 463.3 ($[M+H]^+$ for ^{35}Cl);
- (4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid, MS (ES): 463.2 ($[M+H]^+$ for ^{35}Cl);

- 2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid, = MS (ES): 491.1([M+H]⁺ for ³⁵Cl);
- 1-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)cyclobutanecarboxylic acid MS (ES): 503.3[M+H]⁺. ;
- 5 • 2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-ethylbutanoic acid, MS (ES): 519.2[M+H]⁺;
- 2-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid, MS (ES): 491.4[M+H]⁺. ;
- 1-(2,5-dichlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-3-(trifluoromethyl)-1H-pyrazole, MS (ES): 547 [M+H]⁺;
- 10 • 2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]-3-(trifluoromethyl)pyridine MS (ES): 518.3 [M+H]⁺.
- 1-[5-chloro-2-(methyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.07 (1H, m), 7.85 (1H, m), 7.75 (1H, m), 7.58 (1H, t), 7.50-7.45 (2H, m), 7.25 (1H, d), 6.94 (1H, d), 6.88 (1H, d), 6.85 (1H, s), 3.65 (3H, s), 3.09 (3H, s). MS (ES):
- 15 513 [M+H]⁺.
- 1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.09 (1H, m), 7.88 (1H, m), 7.77 (1H, m), 7.66 (1H, d), 7.60 (1H, t), 7.39 (1H, dd), 7.29 (1H, d), 7.24-7.15 (2H, m), 7.07 (1H, t), 6.93 (1H, d), 6.82 (1H, d), 6.79
- 20 (1H, s), 6.70-6.64 (2H, m), 3.10 (3H, s). MS (ES): 575 [M+H]⁺.
- 1-(2-chloro-5-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.07 (1H, m), 7.86 (1H, m), 7.75 (1H, m), 7.63-7.49 (2H, m), 7.33 (1H, m), 7.31-7.23 (2H, m), 6.91-6.85 (2H, m), 3.08 (3H, s). MS (ES): 501 [M+H]⁺.
- 1-(5-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.09 (1H, m), 7.87 (1H, m), 7.77 (1H, m), 7.64-7.56 (2H, m), 7.50
- 25 (1H, m), 7.28 (1H, d), 7.17 (1H, t), 6.92 (1H, d), 6.88 (1H, s), 3.09 (3H, s). MS (ES): 501 [M+H]⁺.
- 1-[2-chloro-5-(methyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.06 (1H, m), 7.85 (1H, m), 7.75 (1H, m), 7.58 (1H, t), 7.43 (1H, m), 7.25 (1H, d), 7.14-7.02 (2H, m), 6.89 (1H, s), 6.87 (1H, d), 3.85 (3H, s), 3.08 (3H, s). MS (ES):
- 30 513 [M+H]⁺.
- 1-[2-chloro-5-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (CDCl₃): δ 8.06 (1H, m), 7.90-7.83 (2H, m), 7.79 (1H, m),

7.76-7.67 (2H, m), 7.59 (1H, t), 7.25 (1H, m), 6.92 (1H, s), 6.84 (1H, d), 3.08 (3H, s); MS (ES): 551 and 553 [each M+H]⁺.

- 4-chloro-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol; ¹H-NMR (CDCl₃): δ 8.04 (1H, m), 7.84 (1H, d), 7.74 (1H, d), 7.57 (1H, t), 7.30 (1H, d), 7.24 (1H, d), 6.99 (1H, m), 6.93 (1H, m), 6.91-6.87 (2H, m), 3.09 (3H, s). MS (ES): 499 [M+H]⁺.
- 4-chloro-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzamide; ¹H-NMR (DMSO-*d*₆): δ 8.29 (1H, d), 8.25-8.15 (2H, m), 8.04 (1H, d), 7.96-7.79 (3H, m), 7.75-7.64 (3H, m), 7.56 (1H, m), 7.28 (1H, d), 3.28 (3H, s). MS (ES): 526 [M+H]⁺.
- 3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide; ¹H-NMR (DMSO-*d*₆): δ 8.07 (1H, m), 8.01-7.96 (2H, m), 7.90-7.70 (5H, m), 7.67-7.57 (3H, m), 7.39 (2H, s). MS (ES): 484 [M+H]⁺.
- 4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide; ¹H-NMR (CDCl₃): δ 7.96-7.88 (2H, m), 7.61-7.52 (5H, m), 7.51-7.44 (2H, m), 7.18 (1H, d), 6.94 (1H, s), 4.89 (2H, s). MS (ES): 484 [M+H]⁺.
- 3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; ¹H-NMR (DMSO-*d*₆): δ 7.89 (1H, m), 7.85 (1H, m), 7.81-7.69 (4H, m), 7.68-7.55 (3H, m), 7.51 (1H, s), 7.45 (2H, s), 7.28 (1H, d). MS (ES): 484 [M+H]⁺.
- 4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; ¹H-NMR (DMSO-*d*₆): δ 7.87-7.60 (9H, m), 7.51 (1H, s), 7.43-7.37 (2H, s), 7.28 (1H, d). MS (ES): 484 [M+H]⁺.
- 3-{5-[1-(2-chloro-5-hydroxyphenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; ¹H-NMR (DMSO-*d*₆): δ 10.02 (1H, s), 7.94 (1H, s), 7.78 (2H, m), 7.58-7.65 (1H, m), 7.54 (1H, d), 7.47 (2H, s), 7.36 (1H, t), 7.21-7.25 (1H, m), 7.13-7.09 (2H, m), 6.96 (1H, m), MS (ES): 500 [M+H]⁺.
- 4-chloro-2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol; MS (ES): 499 [M+H]⁺.
- 3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)benzenesulfonamide; MS (ES): 519 [M+H]⁺.
- 3-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)benzenesulfonamide; MS (ES): 518 [M+H]⁺.
- 2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide; MS (ES): 528 [M+H]⁺.

- 3-(5-{1-[5-chloro-2-(phenyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)benzenesulfonamide; MS (ES): 576 [M+H]⁺.
- 5-{5-[3-(Methylsulfonyl)phenyl]-2-thienyl}-1-[2-(phenyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole; MS (ES): 541 [M+H]⁺.
- 5 • 2-Chloro-6-methyl-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol; MS (ES): 513 [M+H]⁺.
- *N*-(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide; MS (ES): 534 [M+H]⁺.
- 1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-3-yl]-3-(trifluoromethyl)-1H-pyrazole, MS(ES):
10 477.0 [M+H]⁺;
- 1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 477 [M+H]⁺.
- 2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}-3-(trifluoromethyl)pyridine, MS(ES): 512 [M+H]⁺.
- 15 • 4'-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-sulfonamide, MS(ES): 478 [M+H]⁺
- 1-(2-chlorophenyl)-5-{3'-[(1-methylethyl)sulfonyl]biphenyl-4-yl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 505 [M+H]⁺.
- 5-{3'-[(1-methylethyl)sulfonyl]biphenyl-4-yl}-3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-
20 1H-pyrazole, MS(ES): 539 [M+H]⁺.
- 1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 517 [M+H]⁺
- 2-methyl-2-(3-(5-(3-(trifluoromethyl)-1-(3-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-5-yl)thiophen-2-yl)phenyl)propanoic acid. MS (ES): 526 [M+H]⁺.
- 25 • methyl 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)benzoate. MS (ES): 507 [M+H]⁺.
- 2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl)propan-2-ol. MS (ES): 507 [M+H]⁺.
- 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanol. MS
30 (ES): 417 [M+H]⁺.
- 3-chloro-2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]pyridine: ¹H-NMR (DMSO-*d*₆): δ 8.73 (1H, dd), 8.39 (1H, dd), 8.03 (1H, m), 7.90-7.83 (3H, m), 7.72-7.65 (2H, m), 7.55 (1H, s), 7.26 (1H, d), 3.27 (3H, s). MS (ES): 484 [M+H]⁺.

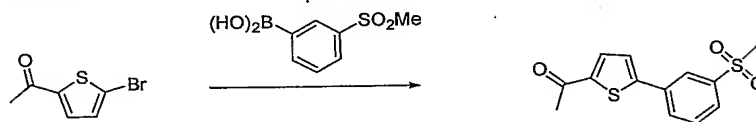
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole;
MS (ES): 483 [M+H]⁺;
- 2-{5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-3-trifluoromethyl-pyridine; MS (ES): 518 [M+H]⁺;
- 5 • 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole; MS (ES): 517 [M+H]⁺;
- 1-(2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole;
MS (ES): 463 [M+H]⁺;
- 1-[2-(methoxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; MS (ES): 479 [M+H]⁺;
- 10 • 1-(2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole;
MS (ES): 467 [M+H]⁺;
- 1-(2-ethylphenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS
(ES) 477.3 [M+H]⁺
- 15 • 1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS (ES) 483.2, 485.2 [M+H]⁺
- 1-(2-chlorophenyl)-3-(trifluoromethyl)-5-{4-[3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazole,
MS (ES) 472.3, 474.3 [M+H]⁺.

Example 2

- 20 1-(2,5-Dichloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole

Example 2a

Preparation of 1-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-ethanone



- 25 Into a 500 mL flask was weighed 5.04 g of 2-acetyl-5-bromothiophene (24.6 mmol), 6.14 g (30.7 mmol) of boronic acid, 604 mg (523 μmol) of tetrakis(triphenylphosphine)palladium (0), 300 mL of THF, and 30 mL of 1.0 M Na₂CO₃. The resulting solution was heated at 80-85 °C overnight during which time much of the THF evaporated. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M Na₂CO₃. The ethyl acetate was separated and filtered of the insoluble product. The solids were washed with ethyl acetate and the filtrate was combined with the ethyl acetate extracts, was
- 30 dried (MgSO₄), and concentrated *in vacuo*. The residue was then crystallized from ethyl acetate

affording the product as a faintly yellow powder, yield: 1.14 g (16.5%). The product filtered from the extraction was recovered as a colorless powder, yield: 4.30 g (62.4%). ^1H NMR (400 MHz, CDCl_3): δ 8.21 (s, 1H), 7.92 (t, $J = 7$ Hz, 2H), 7.70 (d, $J = 4.0$ Hz, 1H), 7.65 (t, $J = 7$ Hz, 1H), 7.44 (d, $J = 4$ Hz, 1H), 3.10 (s, 3H), 2.59 (s, 3H).

Example 2b

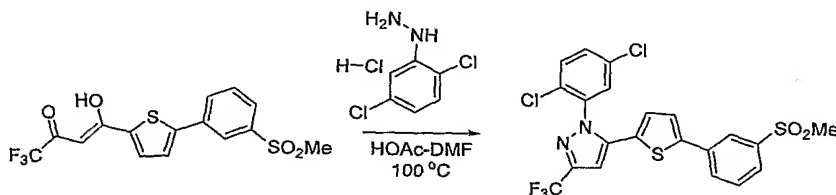
Preparation of 4,4,4-Trifluoro-1-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-butane-1,3-dione



Into a 250 mL flask was weighed 5.42 g (19.3 mmol) of 1-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)ethanone and 42 mL of THF. The resulting suspension was stirred and cooled to 0-3 °C in an ice bath and 23 mL of a lithium bis(trimethylsilyl)amide solution (1.0 M in THF) was added. The resulting thick yellow suspension was stirred and allowed to warm to room temperature then ethyl trifluoroacetate (3.46 mL, 29 mmol) was added. After stirring at room temperature overnight the reaction was concentrated *in vacuo* to remove THF. The residue was washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated, washed with brine, dried (MgSO_4), and concentrated *in vacuo*. The resulting amorphous yellow powder was pure enough for further synthetic transformations, yield: 7.2 g (99%). ^1H NMR (400 MHz, $\text{DMSO}-d_6$): δ 8.20 (d, $J = 7$ Hz, 1H), 8.08 (t, $J = 7$ Hz, 1H), 7.95 (d, $J = 4.0$ Hz, 1H), 7.89 (d, $J = 7$ Hz, 1H), 7.78 (d, $J = 4$ Hz, 1H), 7.69 (t, $J = 7$ Hz, 1H), 6.22 (broad s, 1H), 3.26 (s, 3H).

Example 2c

Preparation of 1-(2,5-Dichloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole



Into an 8 mL vial was weighed 202.7 mg (539 μmol) of (Z)-1,1,1-trifluoro-4-hydroxy-4-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)but-3-en-2-one, 117.4 mg (550 μmol) of 2,5-dichlorophenylhydrazine hydrochloride, 3 mL of acetic acid, and 1 mL of DMF. The resulting reaction was stirred at 100-105 °C for 3 h then was concentrated to dryness *in vacuo*. The residue was purified by silica gel flash chromatography (3 x 23 cm, 1:1 ethyl acetate-hexanes) and was dried affording the product as a faintly yellow solid, yield: 89 mg (55%). ^1H NMR (400 MHz, CDCl_3): δ 8.08 (s, 1H),

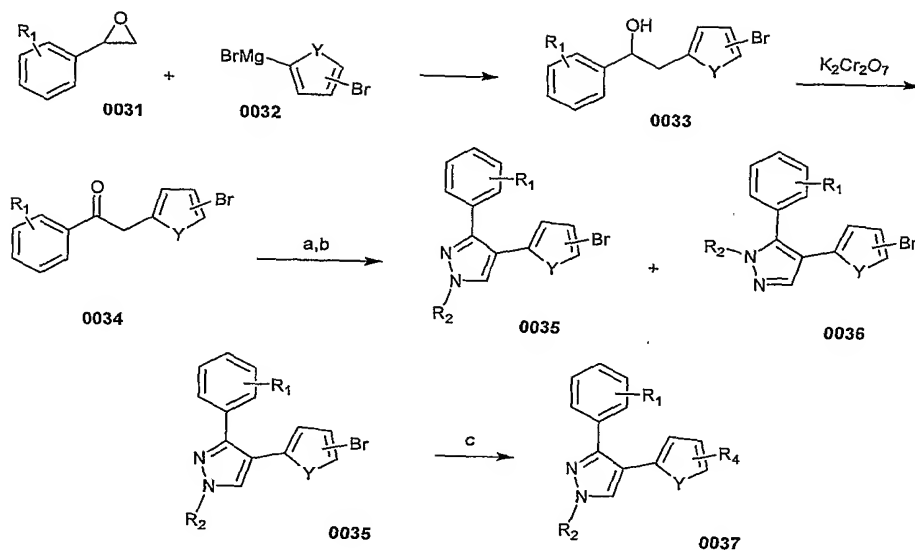
7.87 (d, $J = 9$ Hz, 1H), 7.75 (d, $J = 9$ Hz, 1H), 7.6 (m, 2H), 7.5 (m, 2H), 7.27 (d, $J = 4$ Hz, 1H), 6.90 (s, 1H), 6.87 (d, $J = 4$ Hz, 1H), 3.09 (s, 3H).

The following compounds are prepared essentially according to the previous examples:

- 5 • 1-(2,5-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ ($\text{DMSO-}d_6$): δ 8.02 (1H, m), 7.90-7.79 (2H, m), 7.73-7.61 (2H, m), 7.47 (1H, s), 7.44-7.32 (3H, m), 7.23 (1H, d), 3.27 (3H, s), 2.36 (3H, s), 1.89 (3H, s). MS (ES): 477 $[\text{M}+\text{H}]^+$.
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylmethyl)-3-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ (CDCl_3): δ 8.13 (1H, m), 7.93-7.77 (2H, m), 7.62 (1H, t), 7.38-7.28 (4H, m), 7.13-7.06 (2H, m), 7.01 (1H, d), 6.73 (1H, s), 5.54 (2H, s), 3.10 (3H, s). MS (ES): 463 $[\text{M}+\text{H}]^+$.
- 10 • 1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 517 $[\text{M}+\text{H}]^+$.

Pyrazole Ib

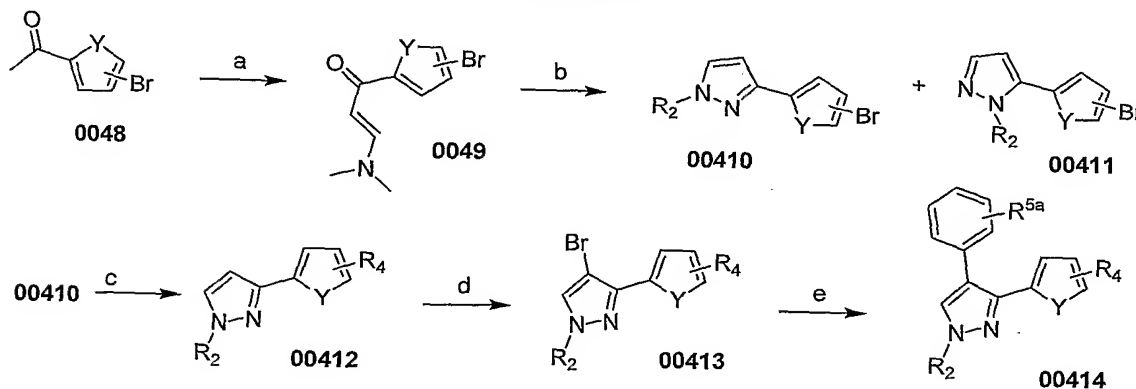
A general synthesis of pyrazole Ib (**0037**) is depicted in Scheme 3. First, an aryl-oxirane (**0031**) can be reacted with a bromoaryl-magnesium bromide (**0032**) to yield an alcohol intermediate (**0033**), which can be oxidized under standard conditions to give the corresponding ketone (**0034**). Oxiranes **0031** can be prepared readily from epoxidation of styrenes or treatment of aryl-carboxaldehydes with trimethylsulfonium iodide under basic conditions. Intermediate **0034** can be condensed with N,N -dimethyl-formamide dimethyl acetal (DMFDMA) and then a hydrazine, for example, an alkylhydrazine, R^2NHNH_2 , to provide a mixture of two pyrazole isomers, **0035** and **0036**. Resolution of the two pyrazole isomers should be possible via typical chromatography methods. Next, pyrazole **0035** can undergo Suzuki cross-coupling with a boronic acid, $\text{R}^4\text{B}(\text{OH})_2$, to afford the desired product (**0037**).

Scheme 3

Reactions and conditions: (a) DMFDMA, reflux; (b) R^2NHNH_2 , EtOH, reflux; (c) $R^4B(OH)_2$, K_2CO_3 , 10mol% $PdCl_2(dppf)$, H_2O , dioxane, $80^\circ C$.

5 **Pyrazole Ic**

A general synthesis of pyrazole Ic (00414) is shown in Scheme 4. First, an acetyl-bromoarene (0048), for example, where Y is S, O or $CH_2=CH_2$, can be condensed with DMFDMA followed by hydrazine, for example an alkylhydrazine, R^2NHNH_2 , to afford a mixture of two pyrazole isomers, 00410 and 00411. Resolution of the two pyrazole isomers should be possible via typical chromatography methods. Suzuki cross-coupling of 00410 with a boronic acid, $R^4B(OH)_2$, under standard conditions can provide intermediate 00412. Pyrazole 00412 can be brominated, such as with NBS, and then cross-coupled with an arylboronic acid, $R^{5a}B(OH)_2$, to yield the desired product (00414).

Scheme 4

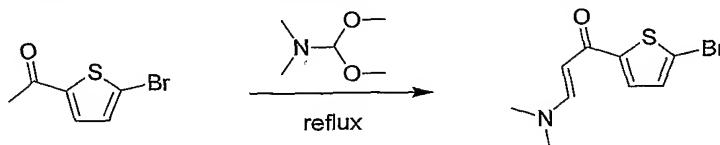
Reactions and conditions: (a) DMFDMA, reflux; (b) R^2NHNH_2 , EtOH, reflux; (c) $R^4B(OH)_2$, K_2CO_3 , 10mol% $PdCl_2(dppf)$, H_2O , dioxane, $80^\circ C$; (d) NBS, THF; (e) $R^{5a}PhB(OH)_2$, K_2CO_3 , 10mol% $PdCl_2(dppf)$, H_2O , dioxane, $80^\circ C$.

Example 3

4-(2-chlorophenyl)-3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole

Example 3a

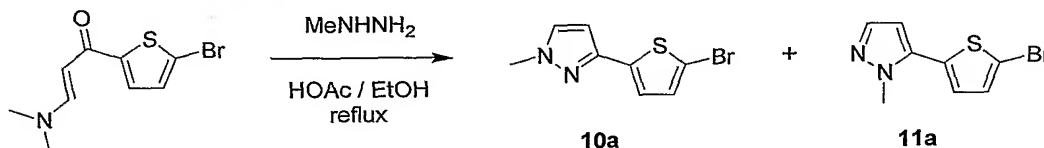
Preparation of 1-(5-bromothiophen-2-yl)-3-dimethylaminopropenone



A stirred mixture of 2-acetyl-5-bromothiophene (1.03 g, 5.0 mmol) and N,N-dimethylformamide dimethyl acetal (2 mL) was heated at $110^\circ C$. After 15 h orange solids were recovered and dried under high vacuum to yield the title compound (1.3 g, quant), which was used in the next step without purification. R_f 0.17 (10% EtOAc/DCM); 1H -NMR (CD_2Cl_2): δ 7.73 (1H, d), 7.33 (1H, d), 7.06 (1H, d), 5.52 (1H, d), 3.13 (3H, s), 2.90 (3H, s).

Example 3b

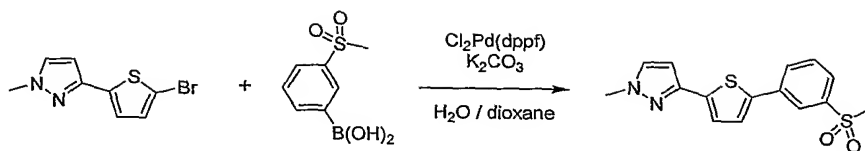
Preparation of 3-(5-bromothiophen-2-yl)-1-methyl-1H-pyrazole



To a stirred solution of 1-(5-bromothiophen-2-yl)-3-dimethylaminopropenone (0.70 g, 2.7 mmol) in EtOH (15 mL) was added methylhydrazine (0.16 mL, 3.0 mmol) and then acetic acid (0.45 mL, 8.0 mmol). The resulting mixture was heated at reflux for 2 h, allowed to cool to ambient temperature and then concentrated under reduced pressure. The residue was diluted with DCM (50 mL), washed with H_2O and brine, then dried (Na_2SO_4), concentrated and purified by chromatography (silica, DCM) to yield the title compound **10a** (0.21 g) as a white solid and regioisomer, 5-(5-bromothiophen-2-yl)-1-methyl-1H-pyrazole, **11a** (0.35 g) as a pale yellow solid. **10a**: R_f 0.42 (DCM); 1H -NMR (CD_2Cl_2): δ 7.36 (1H, d), 7.01 (2H, m), 6.41 (1H, d), 3.87 (3H, s); **11a**: R_f 0.19 (DCM); 1H -NMR (CD_2Cl_2): δ 7.42 (1H, d), 7.10 (1H, d), 6.94 (1H, m), 6.36 (1H, d), 3.92 (3H, s).

Example 3c

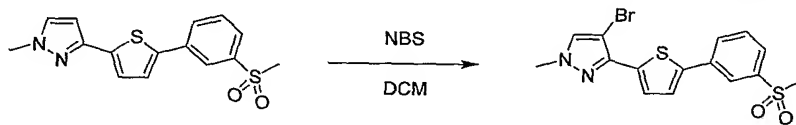
Preparation of 3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole



A stirred mixture of 3-(5-bromothiophen-2-yl)-1-methyl-1H-pyrazole (0.20 g, 0.83 mmol), 3-methanesulfonyl-phenylboronic acid (0.20 g, 1.0 mmol), K_2CO_3 (345 mg, 2.5 mmol), $Cl_2Pd(dppf) \cdot DCM$ (82 mg, 10 mol%) and H_2O (0.6 mL) in dioxane (6 mL) was sparged with Argon for 5 min and then heated at $85^\circ C$ as a sealed flask. After 6 h the reaction mixture was allowed to cool to ambient temperature, filtered (CeliteTM) and the filter agent rinsed with EtOAc. The combined filtrates were concentrated under reduced pressure and purified by chromatography (silica, EtOAc/DCM, 2:98 to 5:95) to give the title compound (0.11 g, 42%) as a white solid. ^1H-NMR (CD_2Cl_2): δ 8.15 (1H, m), 7.89 (1H, m), 7.80 (1H, m), 7.60 (1H, m), 7.40 (2H, m), 7.29 (1H, d), 6.50 (1H, d), 3.91 (3H, s), 3.07 (3H, s).

Example 3d

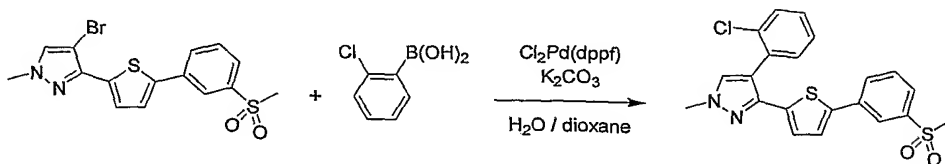
Preparation of 4-bromo-3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole



To a stirred solution of 3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole (0.10 g, 0.31 mmol) in DCM (3 mL, anhyd) was added N-bromosuccinimide (NBS) (56 mg, 0.31 mmol). After 22 h additional NBS (56 mg) was added and stirring was continued at ambient temperature. After 46 h (total) the reaction mixture was concentrated under reduced pressure and purified by chromatography (silica, EtOAc/Hex, 20:80 to 40:60) to give the title compound (98 mg, 79%) as a white solid. ^1H-NMR (CD_2Cl_2): δ 8.17 (1H, m), 7.91 (1H, m), 7.82 (1H, m), 7.72 (1H, d), 7.61 (1H, m), 7.50 (1H, s), 7.44 (1H, d), 3.91 (3H, s), 3.08 (3H, s).

Example 3e

Preparation of 4-(2-chlorophenyl)-3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole



A mixture of 4-bromo-3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole (88 mg, 0.22 mmol), 2-chlorophenylboronic acid (41 mg, 0.26 mmol), K_2CO_3 (91 mg, 0.66 mmol), $Cl_2Pd(dppf) \cdot DCM$ (18 mg, 10 mol%) and H_2O (0.25 mL) in dioxane (2.5 mL) was sparged with Argon

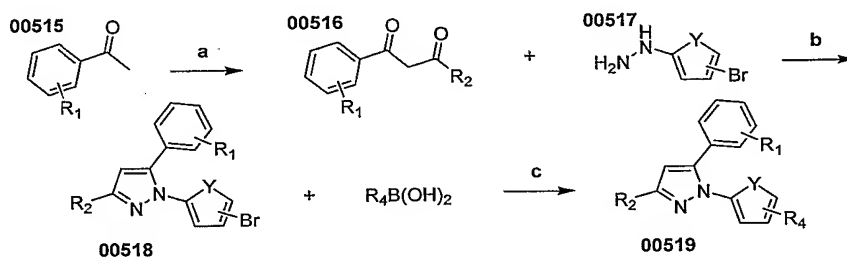
for 5 min and then heated at 80°C as a sealed flask. After 4 h the reaction mixture was allowed to cool to ambient temperature, filtered (Celite™) and the filter agent rinsed with EtOAc. The combined filtrates were concentrated under reduced pressure and purified by chromatography (silica, EtOAc/Hex, 30:70 to 40:60) to give the title compound (64 mg, 67%). *R*_f 0.14 (40% EtOAc/Hex); ¹H-NMR (CD₂Cl₂): δ 8.09 (1H, m), 7.85-7.76 (2H, m), 7.60-7.49 (2H, m), 7.45 (1H, s), 7.41-7.30 (3H, m), 7.21 (1H, d), 6.70 (1H, d), 3.97 (3H, s), 3.05 (3H, s); MS (ES): 429 [M+H]⁺.

The following compounds were prepared from appropriate reagents in a similar manner:

- 4-(2-Chlorophenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-methyl-1H-pyrazole: ¹H-NMR (DMSO-*d*₆): δ 8.05 (1H, m), 7.93 (1H, d), 7.85 (1H, d), 7.75-7.63 (3H, m), 7.50 (1H, m), 7.38-7.26 (4H, m), 3.97 (3H, s), 3.27 (3H, s); MS (ES): 429 [M+H]⁺.
- 4-(2-Chlorophenyl)-3-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2,2,2-trifluoro-ethyl)-1H-pyrazole: ¹H-NMR (CD₂Cl₂): δ 8.10 (1H, m), 7.87-7.76 (2H, m), 7.64-7.50 (3H, m), 7.45-7.31 (3H, m), 7.23 (1H, d), 6.75 (1H, d), 4.86-4.76 (2H, m), 3.05 (3H, s); MS (ES): 497 [M+H]⁺.
- 4-(2-Chlorophenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2,2,2-trifluoro-ethyl)-1H-pyrazole: ¹H-NMR (CD₂Cl₂): δ 8.08 (1H, m), 7.87-7.78 (3H, m), 7.60 (1H, m), 7.46-7.39 (2H, m), 7.29-7.17 (3H, m), 7.09 (1H, d), 4.89-4.80 (2H, m), 3.06 (3H, s); MS (ES): 497 [M+H]⁺.

Pyrazole Id

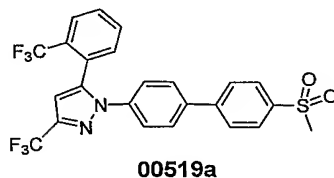
Scheme 5



Reaction and conditions: (a) LiHMDS, THF; R²CO₂Et, -78 to 20°C; (b) HOAc, EtOH, reflux; (c) K₂CO₃, 10mol% PdCl₂(dppf), H₂O, dioxane, 80°C.

A general synthesis of pyrazole Id (00519) is shown in Scheme 5. First, an acetyl-arene (00515) can be treated with an ester, R²CO₂Et, under Claisen conditions to yield the corresponding 1,3-diketone (00516). Diketone 00516 can be condensed with an arylhydrazine (00517), for example, where Y is S, O or CH₂=CH₂, to afford the corresponding 1-aryl-pyrazole (00518). Intermediate 00518 then can undergo Suzuki cross-coupling with a boronic acid, R⁴B(OH)₂, to give the desired product (00519).

For example, 2'-trifluoromethyl-acetophenone **00515a** ($R^2 = 2\text{-CF}_3$) was condensed with ethyl trifluoroacetate to yield diketone **00516a** ($R^2 = \text{CF}_3$; $R^1 = 2\text{-CF}_3$). Intermediate **00516a** was condensed with 4-bromo-phenylhydrazine hydrochloride **00517a** ($Y = \text{CH}_2 = \text{CH}_2$) to provide pyrazole **00518a** ($R^2 = \text{CF}_3$; $R^1 = 2\text{-CF}_3$; $Y = \text{CH}_2 = \text{CH}_2$), which underwent cross-coupling with 3-methanesulfonyl-phenylboronic acid to afford pyrazole **00519a** ($R^2 = \text{CF}_3$; $R^1 = 2\text{-CF}_3$; $R^4 = 3\text{-MeSO}_2\text{Ph}$; $Y = \text{CH}_2 = \text{CH}_2$).

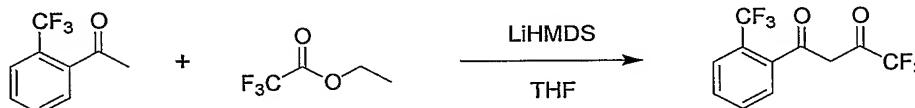


Example 4

1-(3'-methanesulfonyl-biphenyl-4-yl)-3-trifluoromethyl-5-(2-trifluoromethyl-phenyl)-1H-pyrazole

Example 4a

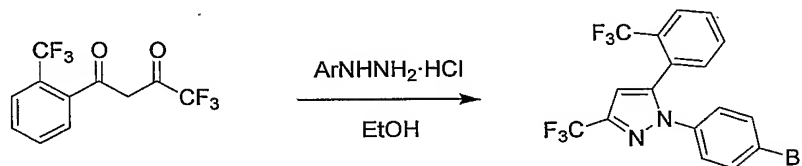
Preparation of 4,4,4-trifluoro-1-(2-trifluoromethyl-phenyl)-butane-1,3-dione



To a stirred solution of 2'-trifluoromethyl-acetophenone (2.25 mL, 15.0 mmol) in THF (20 mL, anhyd) at -78°C added dropwise a 1.0M solution of lithium hexamethyldisilazide (LiHMDS) (15.8 mL, 15.8 mmol). After 1 h the reaction mixture was cooled to -78°C and charged dropwise with ethyl trifluoroacetate (3.6 mL, 30 mmol). After addition was complete, the reaction mixture was allowed to warm to ambient temperature. The reaction mixture was quenched by slow addition of H_2O (20 mL) and concentrated under reduced pressure. The resulting material was transferred to a separatory funnel, diluted with Et_2O (60 mL), washed with 1N HCl and brine, then dried (MgSO_4) and concentrated to yield the title compound (4.2 g, 99%) as an amber liquid, which was used in the next step without purification. Rf: 0.15 (20% EtOAc/Hex).

Example 4b

Preparation of 1-(4-bromophenyl)-3-trifluoromethyl-5-(2-trifluoromethyl-phenyl)-1H-pyrazole

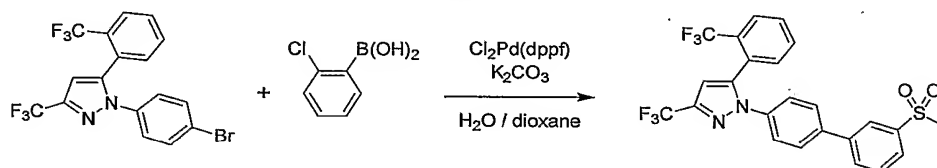


To a stirred solution of 4,4,4-trifluoro-1-(2-trifluoromethyl-phenyl)-butane-1,3-dione (0.40 g, 1.4 mmol) in EtOH (10 mL) was added 4-bromophenylhydrazine hydrochloride (335 mg, 1.5 mmol)

and acetic acid (0.4 mL). The resulting mixture was heated at reflux for 20 h, allowed to cool to ambient temperature and concentrated under reduced pressure. The resulting residue was diluted with DCM (80 mL), washed with satd NaCO₃ and brine, then dried (Na₂SO₄), concentrated and purified by chromatography (silica, EtOAc/Hex, 0:100 to 20:80) to give the title compound (0.54 g, 89%) as a pale yellow liquid. ¹H-NMR (CD₃CN): δ 7.85 (d, 1H), 7.63 (m, 2H), 7.50 (d, 2H), 7.37 (m, 1H), 7.17 (d, 2H), 6.92 (s, 1H).

Example 4c

Preparation of 1-(3'-methanesulfonyl-biphenyl-4-yl)-3-trifluoromethyl-5-(2-trifluoromethyl-phenyl)-1H-pyrazole



A mixture of 1-(4-bromophenyl)-3-trifluoromethyl-5-(2-trifluoromethyl-phenyl)-1H-pyrazole (135 mg, 0.31 mmol), 3-methanesulfonyl-phenylboronic acid (74 mg, 0.37 mmol), K₂CO₃ (0.13 g, 0.93 mmol), Cl₂Pd(dppf)·DCM (24 mg, 10 mol%) and H₂O (0.2 mL) in dioxane (2 mL) was sparged with Argon for 5 min and then heated at 80°C as a sealed flask. After 16 h the reaction mixture was allowed to cool to ambient temperature, filtered (Celite™) and the filter agent rinsed with EtOAc. The combined filtrates were concentrated under reduced pressure and purified by chromatography (silica, EtOAc/Hex, 0:100 to 40:60) to give the title compound (121 mg, 76%). ¹H-NMR (DMSO-*d*₆): δ 8.15 (m, 1H), 8.03 (d, 1H), 7.91 (m, 2H), 7.83 (d, 2H), 7.71-7.76 (m, 3H), 7.66 (m, 1H), 7.40 (d, 2H), 7.18 (s, 1H); MS(ES): 511 [M+H]⁺.

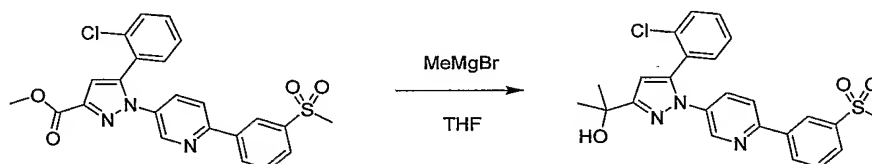
The following compounds were prepared from appropriate reagents in a similar manner:

- 4'-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}biphenyl-3-sulfonamide, MS(ES): 512 [M+H]⁺
- 3-(trifluoromethyl)-1-[3'-(trifluoromethyl)biphenyl-4-yl]-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole, MS(ES): 501 [M+H]⁺
- 3-(trifluoromethyl)-1-{3'-[(trifluoromethyl)oxy]biphenyl-4-yl}-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole, MS(ES): 517 [M+H]⁺
- 1-[3'-(methanesulfonyl)biphenyl-3-yl]-3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole, MS(ES): 511 [M+H]⁺
- 5-[3-(methanesulfonyl)phenyl]-2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}-1,3-thiazole, MS(ES): 518 [M+H]⁺

- 3-(2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}-1,3-thiazol-5-yl)-benzenesulfonamide, MS(ES): 519 $[M+H]^+$
- 5-[3-(methylsulfonyl)phenyl]-2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}pyridine, MS(ES): 512 $[M+H]^+$
- The following compounds were prepared in a similar manner from appropriate reagents and by replacing ethyl trifluoroacetate with dimethyl oxalate:
- methyl 5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazole-3-carboxylate, MS(ES): 467 $[M+H]^+$
- methyl 5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazole-3-carboxylate, MS(ES): 468 $[M+H]^+$
- methyl 5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazole-3-carboxylate, MS(ES): 468 $[M+H]^+$
- methyl 5-{5-[3-(aminosulfonyl)phenyl]-2-thienyl}-1-(2,5-dichlorophenyl)-1H-pyrazole-3-carboxylate; MS (ES): 508 $[M+H]^+$;

Example 5

Preparation of 2-{5-(2-chlorophenyl)-1-[6-(3-methanesulfonyl-phenyl)-pyridin-3-yl]-1H-pyrazol-3-yl}-propan-2-ol



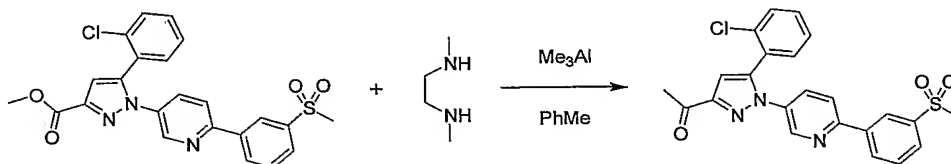
To a stirred solution of methyl 5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazole-3-carboxylate (0.14 g, 0.30 mmol) in THF (3 mL, anhyd) at 0C was added slowly a 1.4M solution of methylmagnesium bromide in 3:1 toluene/THF (0.68 mL, 0.95 mmol). After addition was complete the flask was removed from an ice-water bath and allowed to warm to ambient temperature. After 2 h the reaction mixture was quenched with satd NH_4Cl and extracted with EtOAc (50 mL). The combined extracts were washed with brine, dried (Na_2SO_4), concentrated and purified by chromatography (silica, EtOAc/Hex, 35:65 to 65:35) to yield the title compound (50 mg, 36%) as a white solid. $^1\text{H-NMR}$ ($\text{DCM-}d_2$): δ 8.54 (m, 2H), 8.28 (m, 1H), 7.95 (m, 1H), 7.72-7.81 (m, 2H), 7.68 (m, 1H), 7.34-7.46 (m, 4H), 6.52 (s, 1H), 3.07 (s, 3H), 2.64 (s, 1H), 1.66 (s, 6H); MS(ES): 468 $[M+H]^+$. The following compounds were prepared from appropriate reagents in a similar manner:

- 2-[5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 468 $[M+H]^+$

- 2-{5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 467 [M+H]⁺

Example 6

Preparation of 1-{5-(2-chlorophenyl)-1-[6-(3-methanesulfonyl-phenyl)-pyridin-3-yl]-1H-pyrazol-3-yl}-ethanone



To a stirred solution of N,N'-dimethylethylenediamine (56 μ L, 0.52 mmol) in toluene (3 mL, anhyd) at 0°C was added dropwise a 2.0M solution of trimethylaluminum in hexanes (0.75 mL, 1.5 mmol). After addition was complete the flask was removed from the ice-water bath and allowed to warm to ambient temperature. After 50 min the reaction mixture was charged slowly with a solution of methyl 5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazole-3-carboxylate (0.22 g, 0.47 mmol) in toluene (3 mL, anhyd) and then heated at reflux. After 90 min the reaction mixture was allowed to cool to ambient temperature and quenched by addition of 1N HCl. The resulting mixture was extracted with EtOAc (2 x 50 mL). The combined extracts were washed with brine, dried (Na₂SO₄), concentrated and purified by chromatography (silica, EtOAc/Hex, 30:70 to 60:40) to yield the title compound (47 mg, 22%) as a white solid. ¹H-NMR (DCM-*d*₂): δ 8.65 (m, 1H), 8.57 (m, 1H), 8.30 (m, 1H), 7.99 (m, 1H), 7.79-7.87 (m, 2H), 7.71 (m, 1H), 7.36-7.47 (m, 4H), 7.02 (s, 1H), 3.09 (s, 3H), 2.68 (s, 3H); MS(ES): 452 [M+H]⁺.

The following compounds were prepared from appropriate reagents in a similar manner:

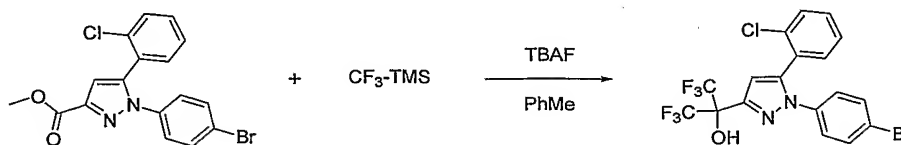
- 1-[5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]ethanone, MS(ES): 452 [M+H]⁺
- 1-{5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}ethanone, MS(ES): 451 [M+H]⁺

Example 7

2-[1-(4-bromophenyl)-5-(2-chlorophenyl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol

Example 7a

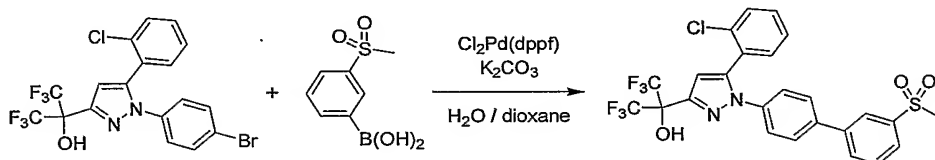
Preparation of 2-[1-(4-bromophenyl)-5-(2-chlorophenyl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol



To a stirred solution of 1-(4-bromophenyl)-5-(2-chlorophenyl)-1H-pyrazole-3-carboxylic acid methyl ester (504 mg, 1.29 mmol) and trifluoromethyl-trimethylsilane (CF₃-TMS) (0.77 mL, 5.2 mmol) in toluene (8 mL, anhyd) was added dropwise a 1.0M solution of tetrabutylammonium fluoride (TBAF) in THF (0.26 mL, 20 mol%, dried over 4Å molecular sieves). After 20 h the reaction mixture was charged with additional CF₃-TMS (0.57 mL) and TBAF (0.2 mL), then heated at 50°C. After 2 h the reaction mixture was allowed to cool to ambient temperature, diluted with DCM (50 mL), washed with H₂O and brine, then dried (Na₂SO₄) and concentrated under reduced pressure. The resulting residue was purified by chromatography (silica, EtOAc/Hex, 0:100 to 20:80) to give the title compound (0.10 g, 16%) as a white solid. ¹H-NMR (DCM-*d*₂): δ 7.40-7.49 (m, 4H), 7.31-7.36 (m, 2H), 7.16 (d, 2H), 6.71 (s, 1H), 5.18 (s, 1H).

Example 7b

Preparation of 2-[5-(2-chlorophenyl)-1-(3'-methanesulfonyl-biphenyl-4-yl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol



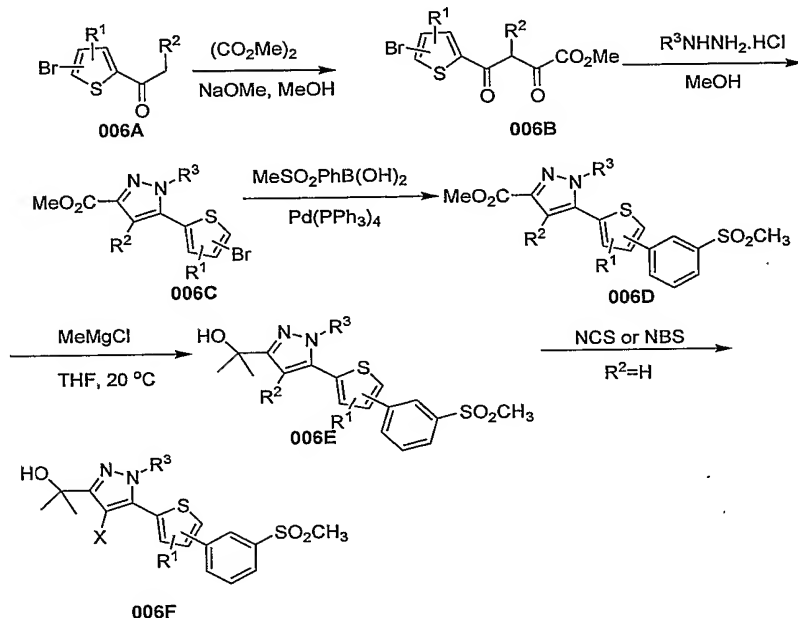
A mixture of 2-[1-(4-bromophenyl)-5-(2-chlorophenyl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol (100 mg, 0.20 mmol), 3-methanesulfonyl-phenylboronic acid (48 mg, 0.24 mmol), K₂CO₃ (83 mg, 0.60 mmol), Cl₂Pd(dppf)·DCM (16 mg, 10 mol%) and H₂O (0.2 mL) in dioxane (2 mL) was sparged with Argon for 5 min and then heated at 80°C as a sealed flask. After 3 h the reaction mixture was allowed to cool to ambient temperature, filtered (Celite™) and the filter agent rinsed with EtOAc. The combined filtrates were concentrated under reduced pressure and purified by chromatography (silica, EtOAc/Hex, 0:100 to 50:50) to give the title compound (94 mg, 82%) as a white solid. ¹H-NMR (DCM-*d*₂): δ 8.12 (m, 1H), 7.92 (m, 1H), 7.87 (m, 1H), 7.67 (m, 1H), 7.61 (d, 2H), 7.33-7.47 (m, 6H), 6.74 (s, 1H), 5.25 (s, 1H), 3.07 (s, 3H); MS(ES): 575 [M+H]⁺.

Pyrazole 1a Carbinols

The synthesis of pyrazole carbinols are depicted in Scheme 6. Bromothieryl ketone (006A) was treated with a base and then dimethyl oxalate to form a diketo ester (006B), which condensed with a hydrazine salt to form bromothierylpyrazole product (006C). Suzuki coupling of the bromothierylpyrazole with a boronic acid mediated with palladium tetrakis(triphenylphosphine) affords a phenylthierylpyrazole ester (006D). It was submitted to Grignard reaction to afford a carbinol product

(006E). Bromo or chloro groups were introduced onto the pyrazole ring *via* reactions with NBS or NCS.

Scheme 6



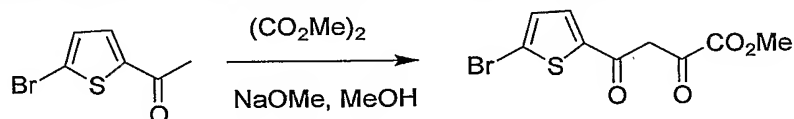
5

Example 8

2-{1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl}-propan-2-ol

Example 8a

Preparation of 4-(5-bromo-thiophen-2-yl)-2,4-dioxo-butyric acid methyl ester



10

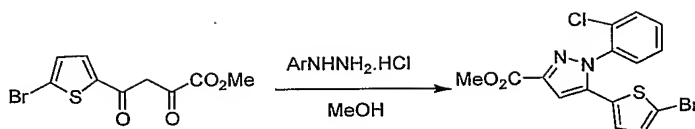
To a solution of 2-acetyl-5-bromothiophene (25 g, 122 mmol) and dimethyl oxalate (23 g, 194 mmol) in dry methanol (800 mL) was added a solution of NaOMe in MeOH (25%, 51 mL, 224 mmol) at ambient temperature. The reaction mixture was stirred at 20°C for 4 h and then acidified to pH 1 with 6 N aqueous HCl. The yellow solid was collected by filtration, washed with H₂O, and dried under high vacuum to afford 4-(5-bromo-thiophen-2-yl)-2,4-dioxo-butyric acid methyl ester (31.3g, 88%).

15

¹H-NMR (DMSO-d₆): δ 8.14 (s, 1H), 7.46 (d, 1H), 7.05 (s, 1H), 3.85 (s, 3H).

Example 8b

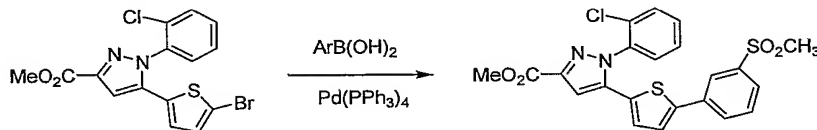
Preparation of 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-1H-pyrazole-3-carboxylic acid methyl ester



A solution of 4-(5-bromo-thiophen-2-yl)-2,4-dioxo-butyric acid methyl ester (15 g, 50 mmol) and 2-chlorophenylhydrazine hydrochloride (10.75 g, 60 mmol) in dry MeOH (200 mL) was heated to reflux for 6 h. After cooling to 20°C, a white solid precipitated and was collected by filtration, washed with a small volume of cold MeOH and dried under high vacuum to afford 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-1H-pyrazole-3-carboxylic acid methyl ester (20 g, 100%). ¹H-NMR (CDCl₃): δ 7.48-7.55 (m, 3H), 7.43 (m, 1H), 7.11 (s, 1H), 6.90 (d, 2H), 6.65 (s, 1H), 3.95 (s, 3H).

Example 8c

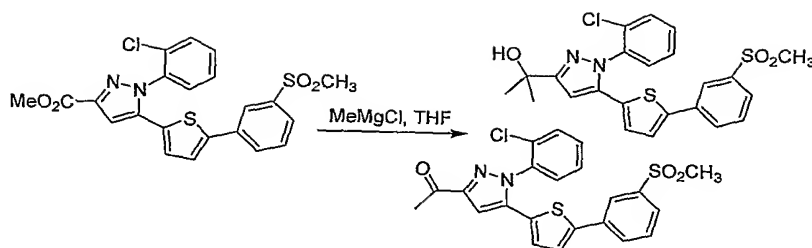
Preparation of 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester



A mixture of 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-1H-pyrazole-3-carboxylic acid methyl ester (8.0 g, 20 mmol), 3-methylsulfonylphenylboronic acid (5.0 g, 24 mmol), sodium carbonate (6.0 g, 56 mmol) and palladium tetrakis(triphenylphosphine) (1.2 g, 1.04 mmol) in 1,4-dioxane (100 mL) and H₂O (5 mL) was stirred at 90°C under N₂ for 16 h. Solid was filtered off and washed with ethyl acetate. The filtrate was concentrated under vacuum to give a residue, which was partitioned between ethyl acetate and water. The aqueous layer was separated and extracted with ethyl acetate. The combined organic layers were washed with brine, dried over sodium sulfate and evaporated to give a crude. It was triturated by DCM to afford 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (4.8 g). The mother liquors from trituration were combined and concentrated to give a solid, which was purified by flash chromatography on silica gel eluted with EtOAc-hexane (0-60%) to afford another 2.8 g of product. The total yield was 7.6 g (80%). ¹H-NMR (CDCl₃): δ 8.04 (m, 1H), 7.84 (m, 1H), 7.73 (m, 1H), 7.50-7.58 (m, 4H), 7.47 (m, 1H), 7.23 (d, 1H), 7.20 (s, 1H), 6.82 (d, 1H), 3.98 (s, 3H), 3.07 (s, 3H).

Example 8d

Preparation of 2-[1-(2-chlorophenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl]-propan-2-ol and 1-[1-(2-chlorophenyl)-5-[5-[3-(methanesulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]ethanone



To a stirred solution of 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (5.22 g, 11.036 mmol) in dry THF (200 mL) was added dropwise a solution of MeMgCl in THF (3.0 M, 18 mL, 54 mmol) at -78 °C under N₂. The reaction solution was allowed to warm to rt overnight and then quenched with saturated aqueous NH₄Cl at 0°C. The aqueous layer was separated and extracted with EtOAc. The combined organic layers were washed with brine, dried with sodium sulfate and evaporated *in vacuo*. The residue was purified by flash chromatography (0-60% EtOAc/hexanes) to afford 2-[1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl]-propan-2-ol as a white solid (2.74 g, 52%) and 1-[1-(2-chlorophenyl)-5-[5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]ethanone as a white solid (1.5g, 30%). ¹H-NMR (CDCl₃): δ 8.04 (s, 1H), 7.83 (m, 1H), 7.71 (m, 1H), 7.57-7.53 (m, 3H), 7.50-7.43 (m, 2H), 7.20 (d, 1H), 6.73 (d, 1H), 6.62 (s, 1H), 3.07 (s, 3H), 2.61 (s, 1H), 1.68 (s, 6H). MS(ES): 473 [M+H]⁺, ¹H-NMR (CDCl₃): δ 8.04 (s, 1H), 7.83 (m, 1H), 7.72 (m, 1H), 7.59-7.49 (m, 5H), 7.22 (d, 1H), 7.15 (s, 1H), 6.80 (d, 1H), 3.07 (s, 3H), 2.65 (s, 3H). MS(ES): 457 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 3-[1-(2-chlorophenyl)-5-[5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]pentan-3-ol:
¹HNMR (CDCl₃): δ 8.04 (d, 1H), 7.82 (m, 1H), 7.73 (m, 1H), 7.57-7.42 (m, 5H), 7.20 (d, 1H), 6.74 (d, 1H), 6.52 (s, 1H), 3.08 (s, 3H), 2.81 (brs, 1H), 1.89 (q, 4H), 0.92 (t, 6H). MS(ES) 501 [M+H]⁺, 483 (M-OH).
- 1-[1-(2-chlorophenyl)-5-[5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]propan-1-one:
¹HNMR (CDCl₃): δ 8.04 (d, 1H), 7.83 (m, 1H), 7.73 (m, 1H), 7.59-7.48 (m, 5H), 7.22 (d, 1H), 7.15 (s, 1H), 6.80 (d, 1H), 3.13-3.07 (m, 5H), 1.24 (t, 3H). MS(ES) 471 [M+H]⁺.
- 1-[1-(2-chlorophenyl)-5-[5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]propan-1-ol:
¹HNMR (CDCl₃): δ 8.04 (d, 1H), 7.81 (m, 1H), 7.72 (m, 1H), 7.57-7.42 (m, 5H), 7.20 (d, 1H), 6.75 (d, 1H), 6.63 (s, 1H), 4.81 (t, 1H), 3.07 (s, 3H), 2.6 (brs, 1H), 1.94 (m, 2H), 1.04 (t, 3H). MS(ES) 473 [M+H]⁺, 455 (M-OH).
- 2-[5-[5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 507 [M+H]⁺

- 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 508 [M+H]⁺
- 1-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl)ethanone, MS(ES): 492 [M+H]⁺
- 5 • 2-[1-(3-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 473 [M+H]⁺
- 2-[1-(4-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 473 [M+H]⁺
- 2-[1-(3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 457 [M+H]⁺
- 10 • 2-[1-(2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 457 [M+H]⁺
- 2-[1-(2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 457 [M+H]⁺
- 15 • 1-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-phenyl-1H-pyrazol-3-yl)ethanone, MS(ES): 439 [M+H]⁺
- 1-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-phenyl-1H-pyrazol-3-yl)ethanone MS(ES): 423 [M+H]⁺
- 2-[1-(2,5-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 507 [M+H]⁺
- 20 • 2-[1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 491 [M+H]⁺
- 2-[3-(1-hydroxy-1-methylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl]-6-(trifluoromethyl)phenol, MS(ES): 523 [M+H]⁺
- 25 • 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 508 [M+H]⁺
- 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 508 [M+H]⁺
- 2-[1-(2-chlorophenyl)-5-{5-[4-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 473 [M+H]⁺
- 30 • 2-[1-(2,6-dichloro-3-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 521 [M+H]⁺, 503 (M-OH)

- 2-[1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 507 [M+H]⁺, 489 (M-OH)
- 2-[1-(2-chlorophenyl)-5-{1-methyl-5-[3-(methylsulfonyl)phenyl]-1H-pyrrol-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 470 [M+H]⁺, 452 (M-OH)
- 5 • 2-[1-(2,6-dichlorophenyl)-5-{1-methyl-5-[3-(methylsulfonyl)phenyl]-1H-pyrrol-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 504 [M+H]⁺, 486 (M-OH)
- 2-{1-(2-chlorophenyl)-7-[3-(methylsulfonyl)phenyl]-1,4-dihydroindeno[1,2-c]pyrazol-3-yl}propan-2-ol, MS(ES): 479 [M+H]⁺, 461 (M-OH)
- 2-{1-(2-chlorophenyl)-6-[3-(methylsulfonyl)phenyl]-1,4-dihydroindeno[1,2-c]pyrazol-3-yl}propan-2-ol, MS(ES): 479 [M+H]⁺, 461 (M-OH)
- 10 • 2-[1-(2,6-dichlorophenyl)-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 521 [M+H]⁺.
- 2-[5-{5-[3,4-bis(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 455 [M+H]⁺;
- 15 • 2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(1-methylethyl)benzamide; MS (ES): 514 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-(methylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 441 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(2-fluorobiphenyl-4-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 489 [M+H]⁺;
- 20 • 2-{1-(2-chlorophenyl)-5-[5-(3-fluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 413 [M+H]⁺;
- N-(3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetamide; MS (ES): 452 [M+H]⁺;
- 25 • 2-[1-(2-chlorophenyl)-5-(5-{4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 453 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-3-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 443 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(4-chlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 429 [M+H]⁺;
- 30 • 2-[1-(2-chlorophenyl)-5-{5-[5-fluoro-2-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 443 [M+H]⁺;

- 2-[1-(2-chlorophenyl)-5-{5-[4-(ethyloxy)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 507 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(2,3-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 463 [M+H]⁺;
- 5 • 2-[1-(2-chlorophenyl)-5-(5-pyrimidin-5-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 397 [M+H]⁺;
- 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid; MS (ES): 439 [M+H]⁺;
- N-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide; MS (ES): 488 [M+H]⁺;
- 10 • 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-fluorophenol; MS (ES): 429 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{4-fluoro-2-[(phenylmethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 519 [M+H]⁺;
- 15 • 3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-fluorobenzoic acid; MS (ES): 457 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(1-methyl-1H-indol-5-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 448 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]-5-(trifluoromethyl)phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 521 [M+H]⁺;
- 20 • 2-chloro-5-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide; MS (ES): 472 [M+H]⁺;
- 2-{5-[5-(2-chloro-6-fluorophenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 447 [M+H]⁺;
- 25 • 3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N,N-dimethylbenzenesulfonamide; MS (ES): 502 [M+H]⁺;
- 2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-methylbenzamide; MS (ES): 486 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{2-methyl-4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 467 [M+H]⁺;
- 30 • 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(furan-2-ylmethyl)benzamide; MS (ES): 518 [M+H]⁺;

- methyl 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoate; MS (ES): 453 [M+H]⁺;
- 2-[5-{5-[3-chloro-4-(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 459 [M+H]⁺;
- 5 • 2-[5-(5-{3-chloro-4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 487 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(1,3-thiazolidin-3-ylcarbonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 510 [M+H]⁺;
- 2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-
10 cyclopropylbenzamide; MS (ES): 512 [M+H]⁺;
- 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenol; MS (ES): 429 [M+H]⁺;
- N-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide; MS (ES): 488 [M+H]⁺;
- 15 • 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-fluorobenzoic acid; MS (ES): 457 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(methylthio)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 509 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-methyl-5-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-
20 ol; MS (ES): 439 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-(methyloxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 426 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[6-(methyloxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 426 [M+H]⁺;
- 25 • 2-[1-(2-chlorophenyl)-5-{5-[4-(methyloxy)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 493 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-pyridin-3-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 396 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(1H-indol-6-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES):
30 434 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[(1E)-3,3-dimethylbut-1-en-1-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 401 [M+H]⁺;

- 1,1-dimethylethyl 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-1H-pyrrole-1-carboxylate; MS (ES): 484 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]pyridin-3-yl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 454 [M+H]⁺;
- 5 • 2-[1-(2-chlorophenyl)-5-{5-[2-(cyclopentyloxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 480 [M+H]⁺;
- ethyl 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoate; MS (ES): 467 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(5-methylfuran-2-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 399 [M+H]⁺;
- 10 • 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide; MS (ES): 438 [M+H]⁺;
- methyl N-[(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)carbonyl]glycinate; MS (ES): 510 [M+H]⁺;
- 15 • 3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide; MS (ES): 438 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[3-(thiomorpholin-4-ylcarbonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 524 [M+H]⁺;
- 2-{5-[5-(1,3-benzodioxol-5-yl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 439 [M+H]⁺;
- 20 • 2-[1-(2-chlorophenyl)-5-{5-[2-methyl-5-(morpholin-4-ylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 558 [M+H]⁺;
- 2-[5-{5-[2,4-bis(trifluoromethyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 531 [M+H]⁺;
- 25 • 2-[5-{5-[2,3-bis(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 455 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[3,5-difluoro-2-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 461 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-(phenyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 487 [M+H]⁺;
- 30 • 2-[1-(2-chlorophenyl)-5-{5-[3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 463 [M+H]⁺;

- 2-{1-(2-chlorophenyl)-5-[5-(3,5-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 463 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(2,4,5-trimethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 437 [M+H]⁺;
- 5 • 2-[1-(2-chlorophenyl)-5-(5-naphthalen-2-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 445 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 453 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-5-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 443 [M+H]⁺;
- 10 • 2-{1-(2-chlorophenyl)-5-[5-(1-phenylethenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 421 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[(1E)-prop-1-en-1-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 359 [M+H]⁺;
- 15 • 2-{1-(2-chlorophenyl)-5-[5-(5-fluoro-2-methylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 427 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 425 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{5-methyl-2-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 467 [M+H]⁺;
- 20 • 2-[5-(2,2'-bithien-5-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 401 [M+H]⁺;
- 2-[5-(5-biphenyl-3-yl-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 471 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[5-methyl-2-(propyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 467 [M+H]⁺;
- 25 • 2-{1-(2-chlorophenyl)-5-[5-(4-propylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 437 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{4-[(trifluoromethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 479 [M+H]⁺;
- 30 • 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(2-methylpropyl)benzamide; MS (ES): 494 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[3-(ethyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 439 [M+H]⁺;

- 2-{1-(2-chlorophenyl)-5-[5-(4-ethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 423 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(3,4-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 463 [M+H]⁺;
- 5 • 2-[1-(2-chlorophenyl)-5-{5-[6-(methyloxy)naphthalen-2-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 475 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(2-ethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 423 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(dimethylamino)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 438 [M+H]⁺;
- 10 • 2-{1-(2-chlorophenyl)-5-[5-(2,4,5-trifluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 449 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-5-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 481 [M+H]⁺;
- 15 • 2-{1-(2-chlorophenyl)-5-[5-(2,3,4-trifluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 449 [M+H]⁺;
- N-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetamide; MS (ES): 452 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[3-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 425 [M+H]⁺;
- 20 • 2-[5-{5-[5-chloro-2-(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 459 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2,3,4-tris(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 485 [M+H]⁺;
- 25 • 2-[1-(2-chlorophenyl)-5-{5-[2-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 463 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(1H-indol-5-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 434 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[6-(ethyloxy)naphthalen-2-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 489 [M+H]⁺;
- 30 • 2-[1-(2-chlorophenyl)-5-{5-[4-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 425 [M+H]⁺;

- 2-{1-(2-chlorophenyl)-5-[5-(2,3-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 431 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(2,4-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 431 [M+H]⁺;
- 5 • 2-{5-[5-(2-chloro-6-fluoro-3-methylphenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 461 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(methylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 441 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 463 [M+H]⁺;
- 10 • 2-{5-[5-(6-chloro-2-fluoro-3-methylphenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 461 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(4-fluoro-3-methylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 427 [M+H]⁺;
- 15 • 2-{1-(2-chlorophenyl)-5-[5-(3,4-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 431 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(phenyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 487 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-chloro-2-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 497 [M+H]⁺;
- 20 • 2-{1-(2-chlorophenyl)-5-[5-(2,5-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 463 [M+H]⁺;
- 2-[5-{5-[2-chloro-4-(ethyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 473 [M+H]⁺;
- 25 • 2-{1-(2-chlorophenyl)-5-[5-(3-chlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 429 [M+H]⁺;
- 2-{1-(2-chlorophenyl)-5-[5-(1H-indol-4-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol; MS (ES): 434 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[2-chloro-4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 497 [M+H]⁺;
- 30 • N-(3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide; MS (ES): 488 [M+H]⁺;

- 3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; MS (ES): 474 [M+H]⁺;
- 3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(1-methylethyl)benzamide; MS (ES): 480 [M+H]⁺;
- 5 • 2-[1-(2-chlorophenyl)-5-{5-[4-fluoro-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 481 [M+H]⁺;
- 2-[5-{5-[3,5-bis(trifluoromethyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 531 [M+H]⁺;
- 2-[5-(5-biphenyl-4-yl-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 471 [M+H]⁺;
- 10 • 2-[1-(2-chlorophenyl)-5-{5-[4-(1-methylethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 437 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-ethyl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 347 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-(5-{3-fluoro-4-[(phenylmethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 519 [M+H]⁺;
- 15 • 2-[1-(2-chlorophenyl)-5-{5-[3-chloro-4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 497 [M+H]⁺;
- 2-[1-(2-chlorophenyl)-5-{5-[4-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol; MS (ES): 487 [M+H]⁺;
- 20 • 2-(5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 522 [M+H]⁺, 504 (M-OH)
- 2-[1-(2-chlorophenyl)-5-{4-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 487 [M+H]⁺, 469 (M-OH)
- 2-[1-(2-chlorophenyl)-5-{3-ethyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 25 • 2-[1-(2-chloro-3-fluorophenyl)-5-{3-ethyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 519 [M+H]⁺, 501 (M-OH)
- 2-[5-{4-bromo-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 553 [M+H]⁺.
- 30 • 2-[5-{4-bromo-3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 567 [M+H]⁺.
- 2-[1-(2-chlorophenyl)-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 487 [M+H]⁺.

- 2-[1-(2-chlorophenyl)-5-{3-methyl-4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 487 [M+H]⁺.
- 2-(1-[3-fluoro-2-(trifluoromethyl)phenyl]-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 539 [M+H]⁺.
- 5 • 2-[5-{3-bromo-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol MS(ES): 553 [M+H]⁺.
- 2-[5-{3-chloro-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 507 [M+H]⁺.
- 2-[1-(2-chloro-3-fluorophenyl)-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 505 [M+H]⁺.
- 10 • methyl 5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazole-3-carboxylate, MS(ES): 5536 [M+H]⁺.
- 1-{5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl}ethanone, MS(ES): 520 [M+H]⁺.
- 15 • 2-{5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 536 [M+H]⁺.
- 2-[1-(2-chlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 501 [M+H]⁺.
- 2-[1-(3-fluoropyridin-2-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 458 [M+H]⁺.
- 20 • 2-[1-(2-chloropyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 474 [M+H]⁺.
- 2-[1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 517 [M+H]⁺.
- 25 • 2-[1-(2,3-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 475 [M+H]⁺.
- 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethyl)oxy]phenyl}-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 523 [M+H]⁺.
- 2-[1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 491 [M+H]⁺.
- 30 • 2-[1-(2,2-difluoro-1,3-benzodioxol-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 519 [M+H]⁺.

- 2-(1-[2-chloro-5-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 565 $[M+Na]^+$.
- 2-[1-(2,6-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 475 $[M+H]^+$.
- 5 • 2-[1-(3-fluoro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 471 $[M+H]^+$.
- 2-[1-(5-fluoropyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 458 $[M+H]^+$.
- 2-[4-chloro-1-(5-fluoropyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 492 $[M+H]^+$.
- 10 • 2-[4-bromo-1-(5-fluoropyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 538 $[M+H]^+$.
- 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-4-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 508 $[M+H]^+$.
- 15 • 2-[1-(3-fluoropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 458 $[M+H]^+$.
- 2-[1-(3,5-dichloropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 508 $[M+H]^+$.
- 2-[1-(3-chloropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 474 $[M+H]^+$.
- 20 • 2-(1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol; MS (ES): 565 $[M+H]^+$.
- 1-(1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)ethanone; MS (ES): 549 $[M+H]^+$.
- 25 • 3-{5-[1-(2,5-dichlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; MS (ES): 508 and 510 [each $M+H]^+$.
- 3-{5-[3-acetyl-1-(2,5-dichlorophenyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide; MS (ES): 492 and 494 [each $M+H]^+$.
- 2-(3-(3-(2-hydroxypropan-2-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-1-yl)phenyl)propan-2-ol. MS (ES): 497 $[M+H]^+$.
- 30 • 2-(1-(2,4-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 475 $[M+H]^+$.

- 2-(1-(3,5-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 475 [M+H]⁺.
- 2-(1-(3,4-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 475 [M+H]⁺.
- 5 • 2-(1-(2,4-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 507 [M+H]⁺.
- 2-(1-(2,3-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 507 [M+H]⁺.
- 2-(1-(2,5-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-10 2-ol. MS (ES): 475 [M+H]⁺.
- 2-(1-(3,5-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 507 [M+H]⁺.
- 2-(1-(3,4-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 507 [M+H]⁺.
- 15 • 2-(1-(2-ethylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 467 [M+H]⁺.
- 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-propylphenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 481 [M+H]⁺.
- 2-(1-(5-fluoro-2-methylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-20 yl)propan-2-ol. MS (ES): 471 [M+H]⁺.
- 2-(1-(3-chloro-2-methylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 487 [M+H]⁺.
- 2-(1-(2,4-dichloro-6-(trifluoromethyl)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)-thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 575 [M+H]⁺.
- 25 • 2-(1-(2-isopropylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 481 [M+H]⁺.
- 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 440 [M+H]⁺.
- 2-(1-(2,6-dimethylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-30 2-ol. MS (ES): 467 [M+H]⁺.
- 2-(1-(2-fluoro-6-(trifluoromethyl)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 525 [M+H]⁺.

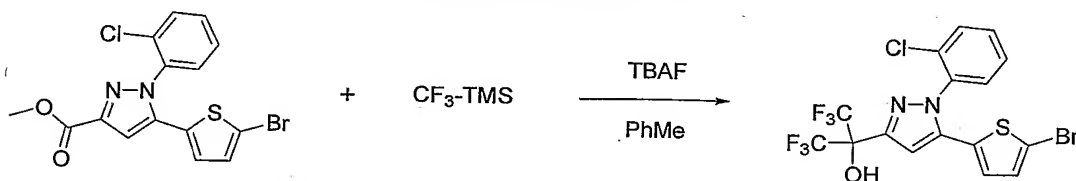
- 2-(1-(2-(difluoromethoxy)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 505[M+H]⁺.
- 2-(1-(3-fluoro-2-(trifluoromethyl)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 525[M+H]⁺.
- 5 • 3-(5-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)thiophen-2-yl)-N-(2-(dimethylamino)ethyl)benzenesulfonamide. MS (ES): 545[M+H]⁺.
- 2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-methylphenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 549[M+H]⁺.
- 10 • 2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chloro-3-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 569[M+H]⁺.
- 2-(1-(2-chloro-3-fluorophenyl)-5-(3-chloro-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 525[M+H]⁺.
- 2-(5-(3-chloro-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 559[M+H]⁺.
- 15 • 2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 603[M+H]⁺.
- 2-(1-(3-fluoro-2-methylphenyl)-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 485[M+H]⁺.
- 20 • 2-(5-(3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl)-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 522 [M+H]⁺.

Example 9

2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoropropan-2-ol

Example 9a

Preparation of 2-[5-(5-bromothiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol

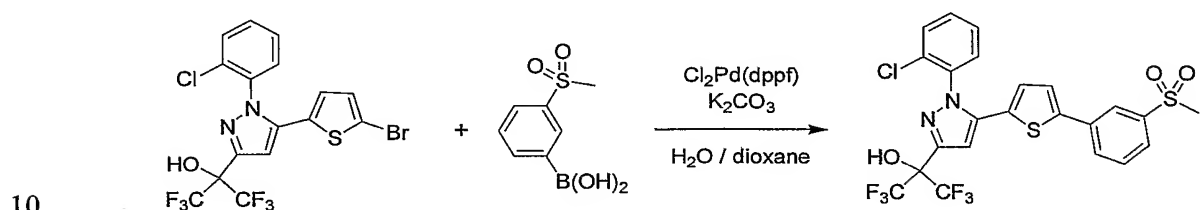


To a stirred solution of 5-(5-bromothiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazole-3-carboxylic acid methyl ester (0.40 g, 1.0 mmol) and trifluoromethyl-trimethylsilane (CF₃-TMS) (0.59 mL, 4.0 mmol) in toluene (4 mL, anhyd) was added dropwise a 1.0M solution of tetrabutylammonium fluoride

(TBAF) in THF (0.20 mL, 20 mol%, dried over 4Å molecular sieves). After 2 h the reaction mixture was charged with additional CF₃-TMS (0.3 mL) and TBAF (50 µL), then heated at 45°C. After 20 h (total) the reaction mixture was allowed to cool to ambient temperature, diluted with DCM (50 mL), washed with H₂O and brine, then dried (Na₂SO₄) and concentrated under reduced pressure. The resulting residue was purified by chromatography (silica, EtOAc/Hex, 0:100 to 30:70) to give the title compound (86 mg). R_f 0.38 (20% EtOAc/Hex); GC-MS(EI): 504, 506 [M⁺].

Example 9b

Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoropropan-2-ol



A mixture of 2-[5-(5-bromothiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]-1,1,1,3,3,3-hexafluoro-propan-2-ol (84 mg, 0.17 mmol), 3-methanesulfonyl-phenylboronic acid (42 mg, 0.21 mmol), K₂CO₃ (70 mg, 0.51 mmol), Cl₂Pd(dppf)-DCM (21 mg, 15 mol%) and H₂O (0.2 mL) in dioxane (2 mL) was sparged with Argon for 5 min and then heated at 80°C as a sealed flask. After 3 h the reaction mixture was allowed to cool to ambient temperature, filtered (Celite™) and the filter agent rinsed with EtOAc. The combined filtrates were concentrated under reduced pressure and purified by chromatography (silica, EtOAc/Hex, 0:100 to 50:50) to give the title compound (34 mg) as a white solid. ¹H-NMR (DCM-*d*₂): δ 8.03 (m, 1H), 7.83 (m, 1H), 7.76 (m, 1H), 7.55-7.62 (m, 4H), 7.49-7.54 (m, 1H), 7.29 (d, 1H), 6.91 (d, 1H), 6.86 (s, 1H), 5.10 (s, 1H), 3.05 (s, 3H); MS(ES): 581 [M+H]⁺.

The following compound was prepared from the appropriate methyl ketone intermediate in a similar manner:

- 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1,1,1-trifluoropropan-2-ol, MS(ES): 527 [M+H]⁺

The following compound was prepared from the appropriate carboxaldehyde intermediate in a similar manner:

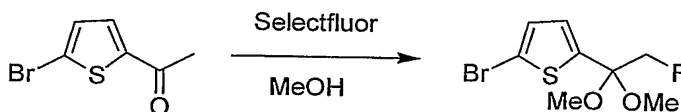
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2,2,2-trifluoroethanol, GC-MS(EI): 512 [M⁺].

Example 10

2-{1-(2-Chloro-phenyl)-4-fluoro-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl}-propan-2-ol

Example 10a

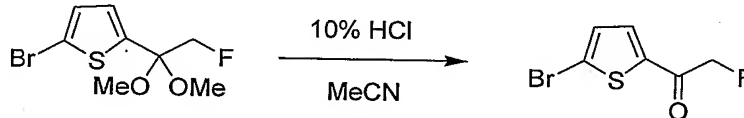
Preparation of 2-bromo-5-(2-fluoro-1,1-dimethoxy-ethyl)-thiophene



To a solution of 2-acetyl-5-bromothiophene (10.3 g, 50 mmol) in dry methanol (300 mL) was added selectfluor (25 g, 70.57 mmol). The suspension was stirred at reflux for 50 h. Evaporation of solvent gave a residual solid, which was taken up in DCM. The insoluble material was filtered off and the filtrate was washed with water, dried over sodium sulfate and evaporated *in vacuo*. The crude product was purified by flash chromatography on silica gel eluted with EtOAc-hexane (0-30%) to afford 2-bromo-5-(2-fluoro-1,1-dimethoxy-ethyl)-thiophene as a white solid (4.8 g, 36%). ¹H-NMR (CDCl₃): δ 6.98 (d, 1H), 6.84 (d, 1H), 4.51 (d, 2H), 3.29 (s, 6H).

Example 10b

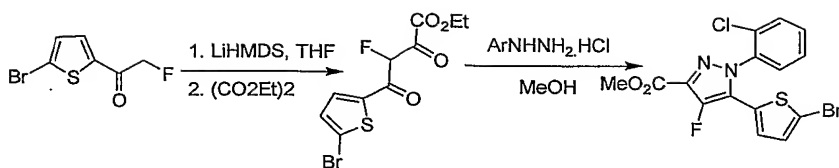
Preparation of 1-(5-bromo-thiophen-2-yl)-2-fluoro-ethanone



To a stirred solution of 2-bromo-5-(2-fluoro-1,1-dimethoxy-ethyl)-thiophene (9.4 g, 35 mmol) in MeCN (100 mL) was added 10% aq. HCl (50 mL) at 20°C and the reaction mixture was stirred at °C for 3 h. Solvent was removed *in vacuo* to afford a residue, which was partitioned between DCM and water, the aqueous layer was extracted with DCM. The combined organic layers were washed with water, sat. aq. NaHCO₃ and brine, dried over sodium sulfate and evaporated *in vacuo* to give a white solid. It was dissolved in minimum volume of DCM, and a large volume of hexane was added. After evaporation of most of the solvent, solid precipitated and was then collected with filtration, washed with hexane and dried under high vacuum to afford 1-(5-bromo-thiophen-2-yl)-2-fluoro-ethanone (6.52 g, 84%). ¹H-NMR (CDCl₃): δ 7.64 (d, 1H), 7.15 (d, 1H), 5.26 (d, 2H).

Example 10c

Preparation of 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-4-fluoro-1H-pyrazole-3-carboxylic acid methyl ester

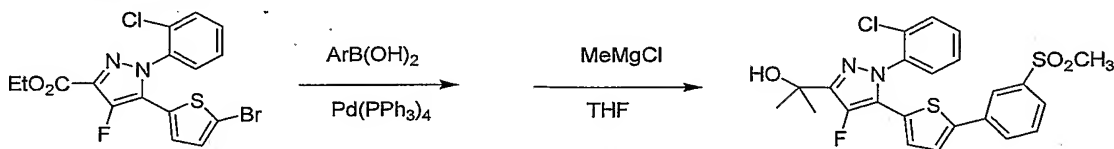


To a stirred solution of 1-(5-bromo-thiophen-2-yl)-2-fluoro-ethanone (6.59 g, 29.54 mmol) in dry THF (200 mL) was added a solution of LiHMDS in THF (1.0 M, 36 mL, 36 mmol) under nitrogen at -78°C and the reaction mixture was stirred at -78 °C for 40 min, then a solution of diethyl oxalate (6 mL, 44.25 mmol) in dry THF (50 mL) was added dropwise. The mixture was allowed to warm to 20°C overnight, then quenched with 2 N aq. HCl and extracted with ether. The combined organic layers were washed with brine, dried over sodium sulfate and evaporated *in vacuo* to afford 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-4-fluoro-1H-pyrazole-3-carboxylic acid methyl ester as a dark-red oil (10.4 g, 100%), which was used in the next reaction without further purification.

A mixture of the above oil (6.4 g, 19.81 mmol) and 2-chlorophenylhydrazine hydrochloride (4.0 g, 22.3 mmol) in dry EtOH (100 mL) was refluxed for 12 h. Solvent was then removed *in vacuo* to give a residue, which was partitioned between EtOAc and water and aqueous layer was separated and extracted with EtOAc. The combined organic layers were washed with sat. NaHCO₃ and brine, dried over sodium sulfate and evaporated *in vacuo* to give a crude. The crude product was purified by flash chromatography on silica gel eluted with EtOAc-hexane (0-30%) to afford 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-4-fluoro-1H-pyrazole-3-carboxylic acid methyl ester as a dark-red syrup (4.27g, 50%). MS(ES): 431 [M+H]⁺.

Example 10d

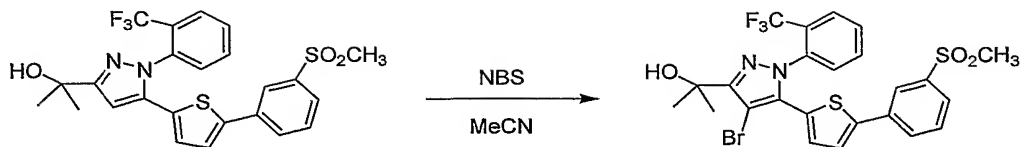
Preparation of 2-[1-(2-Chloro-phenyl)-4-fluoro-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl]-propan-2-ol



The title compound was prepared in a manner similar to that described in Examples 8c and 8d by using 5-(5-bromo-thiophen-2-yl)-1-(2-chloro-phenyl)-4-fluoro-1H-pyrazole-3-carboxylic acid ethyl ester. ¹H-NMR (CDCl₃): δ 8.03 (m, 1H), 7.82 (m, 1H), 7.72 (m, 1H), 7.57-7.45 (m, 5H), 7.27 (d, 1H), 6.99 (d, 1H), 3.07 (s, 3H), 2.74 (s, 1H), 1.72 (s, 6H).

Example 11

Preparation of 2-[4-Bromo-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazol-3-yl]-propan-2-ol



To a stirred solution of 2-[5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazol-3-yl]-propan-2-ol (254mg, 0.5mmol) in dry MeCN was added N-bromosuccinimide (94 mg, 0.53 mmol) at 20 °C and the reaction mixture was stirred at 20 °C overnight. Evaporation of solvent gave a residue, which was purified by flash chromatography on silica gel eluted with EtOAc-hexane (0-60%) to afford the title compound as a white solid (286 mg, 98%).
¹H-NMR (CDCl₃): δ 8.05 (m, 1H), 7.85-7.81 (m, 2H), 7.76 (m, 1H), 7.63-7.61 (m, 2H), 7.56 (t, 1H), 7.39 (m, 1H), 7.25 (d, 1H), 6.98 (d, 1H), 3.09 (s, 1H), 3.07 (s, 3H), 1.74 (s, 6H).

The following compounds are prepared essentially according to the previous examples:

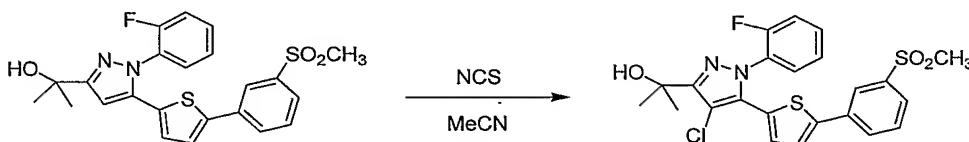
- 10 • 4-bromo-1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 597 [M+H]⁺
- 2-[4-bromo-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 553 [M+H]⁺, 535 (M-OH)
- 2-[4-bromo-1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 569 (M-OH)
- 15 • 2-[4-bromo-1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 551 (M-OH)
- 2-[4-bromo-1-(2-ethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 545 [M+H]⁺, 527 (M-OH)
- 20 • 2-(4-bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethyl)oxy]phenyl}-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 601 [M+H]⁺, 584 (M-OH)
- 2-[4-bromo-1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 595 [M+H]⁺, 577 (M-OH)
- 2-(4-bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 586 [M+H]⁺, 568 (M-OH)
- 25 • 2-(4-Bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 586 [M+H]⁺, 568 (M-OH)
- 2-(4-Bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 586 [M+H]⁺, 568 (M-OH)

- 2-[4-Bromo-1-(3-fluoro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 550 $[M+H]^+$, 531 (M-OH)
- 2-[4-Bromo-1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 569 $[M+H]^+$, 551 (M-OH)

5

Example 12

Preparation of 2-[4-Chloro-1-(2-fluoro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl]-propan-2-ol



To a stirred solution of 2-[1-(2-Fluoro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl]-propan-2-ol (115 mg, 0.25 mmol) in dry MeCN was added N-chlorosuccinimide (35 mg, 0.26 mmol) at 20°C and the reaction mixture was stirred in a sealed vial at 75°C overnight. Evaporation of solvent gave a residue, which was purified by flash chromatography on silica gel eluting with EtOAc-hexane (0-60%) to afford the title compound as a white solid (123 mg, 100%). ¹H-NMR (CDCl₃): δ 8.08 (m, 1H), 7.84 (m, 1H), 7.78 (m, 1H), 7.59-7.49 (m, 3H), 7.30-7.28 (m, 2H), 7.17 (t, 1H), 7.03 (d, 1H), 3.08 (s, 4H), 1.74 (s, 6H).

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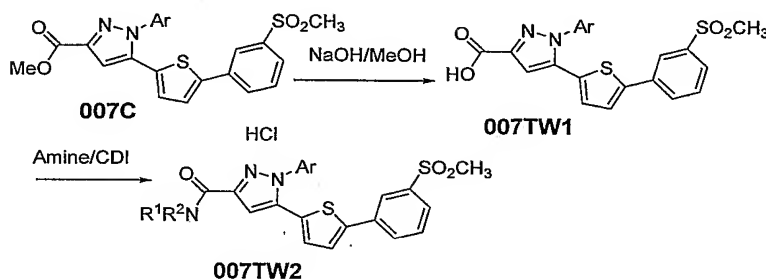
The following compounds are prepared essentially according to the previous examples:

- 2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-4-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 542 $[M+H]^+$.
- 2-[4-chloro-1-(3-fluoropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 492 $[M+H]^+$.
- 2-[4-chloro-1-(3-chloropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 508 $[M+H]^+$.
- 2-[4-chloro-1-(3,5-dichloropyridin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 544 $[M+H]^+$.
- 2-[4-Chloro-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 507 $[M+H]^+$, 489 (M-OH)
- 2-[4-chloro-1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 541 $[M+H]^+$, 523 (M-OH)
- 2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 541 $[M+H]^+$, 523 (M-OH)

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- 2-[4-chloro-1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 525 [M+H]⁺, 507 (M-OH)
- 2-[4-chloro-1-(2-ethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 5 • 2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethoxy)oxy]phenyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 557 [M+H]⁺, 539 (M-OH)
- 2-[4-Chloro-1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 551 [M+H]⁺, 533 (M-OH)
- 10 • 2-(4-Chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 542 [M+H]⁺, 524 (M-OH)
- 2-(4-Chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 542 [M+H]⁺, 524 (M-OH)
- 2-(4-Chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 542 [M+H]⁺, 524 (M-OH)
- 15 • 2-[4-Chloro-1-(3-fluoro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, 505 [M+H]⁺, 487 (M-OH)
- 2-[4-Chloro-1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 525 [M+H]⁺, 507 (M-OH)
- 2-[4-Chloro-1-(2,3-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 509 [M+H]⁺, 491 (M-OH)
- 20 • 2-[4-Chloro-1-(2,6-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 2-[4-Chloro-1-(2,6-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 509 [M+H]⁺, 491 (M-OH)
- 25 • 2-[4-Chloro-1-(2-chloro-6-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 525 [M+H]⁺, 507 (M-OH)
- 2-[4-Chloro-1-(2-chloro-6-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 521 [M+H]⁺, 503 (M-OH)
- 2-[4-Chloro-1-(2,4-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 509 [M+H]⁺, 491 (M-OH)
- 30 • 2-(4-chloro-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 556 [M+H]⁺, 538 (M-OH)

- 2-[4-chloro-3-(1-hydroxy-1-methylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl]-6-(trifluoromethyl)phenol, MS(ES): 557 $[M+H]^+$, 539 (M-OH)
 - 2-[4-chloro-1-(2-chlorophenyl)-5-{1-methyl-5-[3-(methylsulfonyl)phenyl]-1H-pyrrol-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 504 $[M+H]^+$, 486 (M-OH)
- 5 2-(4-chloro-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol, MS(ES): 604 $[M+H]^+$, 524 (M-79).

Scheme 7

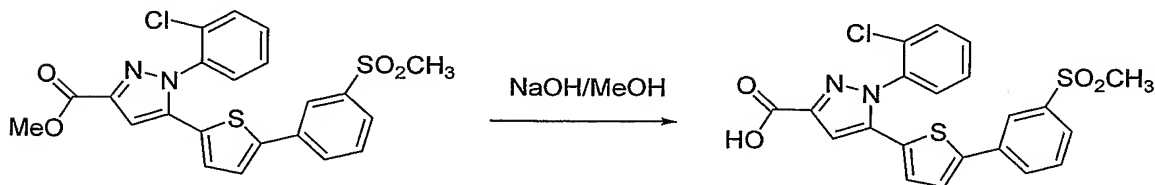
As depicted in Scheme 7 ester **007C** was transformed into amides. Ester **007C** was hydrolyzed to give acid **007TW1**, which treated with carbonyldiimidazole and then an amine to afford amide **007TW2**.

Example 13

1-(2-chlorophenyl)-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

Example 13a

Preparation of 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylic acid



To a solution of 1-(2-chlorophenyl)-5-{5-[3-(methanesulfonyl)phenyl]-thiophen-2-yl}-1H-pyrazole-3-carboxylic acid methyl ester (5.8 g, 12.3 mmol) in MeOH (50 mL) was added aqueous NaOH (4 N, 25 mL) and the mixture was refluxed for 2 h. After cooling to 20 °C, solvent was removed. Water was added to dissolve the crude and then the solution was acidified with acetic acid. Solid was collected by filtration and washed with water and dried under high vacuum to give 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylic acid (5.1 g). MS(ES): 459 $[M+H]^+$.

Example 13b

Preparation of 1-(2-chlorophenyl)-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide



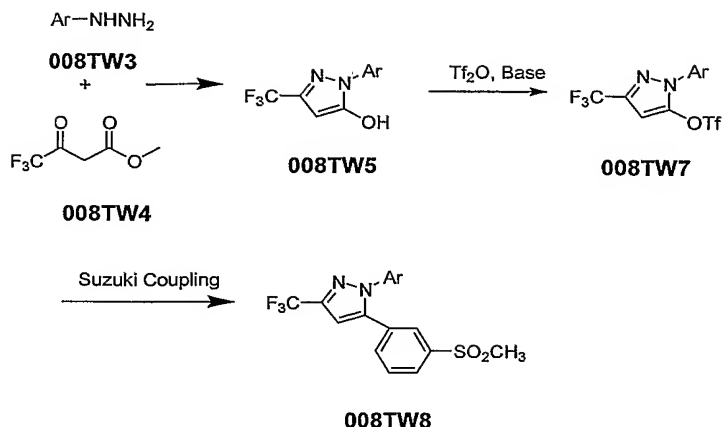
To a suspension of 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylic acid (92 mg, 0.2 mmol) in DCM (2 mL) was added carbonyldiimidazole (39 mg, 1.2 equiv) and stirring was continued for 2 h at 20 °C. A solution of ethylamine in THF (1.8 M, 0.17 mL, 1.5 equiv) was added and the mixture was stirred overnight at 20 °C. Evaporation of solvent gave a crude, which was purified by column chromatography on silica gel eluting with MeOH-DCM (1:19) to afford 1-(2-chlorophenyl)-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide (84 mg). ¹H-NMR (CDCl₃): δ 8.03 (m, 1H), 7.83 (m, 1H), 7.74 (m, 1H), 7.62 - 7.45 (m, 5H), 7.22 (m, 1H), 7.19 (s, 1H), 6.91 (m, 1H), 6.82(d, 1H), 3.55 - 3.43 (m, 2H), 3.07 (3s, H), 1.25 (s, 3H). MS(ES): 486 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)piperidine, MS(ES): 526 [M+H]⁺.
- 1-(2,6-dichlorophenyl)-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide, MS(ES): 588 [M+H]⁺.
- 1-(2,6-dichlorophenyl)-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylcarbonyl)-1H-pyrazole, MS(ES): 560 [M+H]⁺.
- 1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 571.3, 573.3 [M+H]⁺
- 1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 585.3, 587.3 [M+H]⁺
- 1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 543.3, 545.3 [M+H]⁺
- 1-(2-chlorophenyl)-N-[3-(dimethylamino)propyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 557.2, 559.2 [M+H]⁺
- methyl N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)-N-methylglycinate, MS (ES) 544.2, 546.2 [M+H]⁺

- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-N-methylglycine, MS (ES) 530.2, 532.2 [M+H]⁺
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-morpholin-4-ylethyl)-1H-pyrazole-3-carboxamide, MS (ES) 571.3, 573.3 [M+H]⁺
- 5 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-N,N-dimethylpiperidin-4-amine, MS (ES) 569.3, 571.3 [M+H]⁺
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}piperidine-4-carboxylic acid, MS(ES) 570.0, 572.0 [M+H]⁺
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-
- 10 carboxylic acid, MS (ES) 493.1 [M+H]⁺
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylcarbonyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole, MS (ES) 546.3 [M+H]⁺
- 1-(2-chlorophenyl)-N-methyl-N-(methyloxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 502.1, 504.1 [M+H]⁺
- 15 • 1-(2-chlorophenyl)-N-(methyloxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide, MS (ES) 488.0, 490.0 [M+H]⁺
- N-methyl-N-(methyloxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazole-3-carboxamide, MS (ES) 537.3 [M+H]⁺
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1-[3-(trifluoromethyl)pyridin-
- 20 2-yl]-1H-pyrazole-3-carboxamide, MS (ES) 575.3 [M+H]⁺
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide, MS (ES) 540.3, 542.3 [M+H]⁺
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxamide, MS (ES) 574.3 [M+H]⁺
- 25 • methyl 3-{5-[1-(2-chlorophenyl)-3-{{(2,2,2-trifluoroethyl)amino}carbonyl}-1H-pyrazol-5-yl]-2-thienyl}benzoate, MS (ES) 519.3, 521.3 [M+H]⁺
- 1-(2-chlorophenyl)-5-{5-[3-(1-hydroxy-1-methylethyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide, MS (ES) 519.3, 521.3 [M+H]⁺

Scheme 8



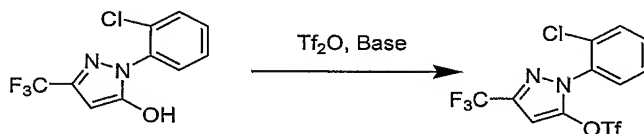
As depicted in Scheme 8, 1H-pyrazol-5-ol **008TW5** was prepared and the hydroxy group was substituted with other groups. Ketoester **008TW4** reacted with hydrozine **008TW3** to form 1H-Pyrazol-5-ol **008TW5**, which was converted to the corresponding triflate **008TW7**. **008TW7** was submitted to Suzuki coupling reaction with a boronic acid to introduce a phenyl group to afford product **008TW8**.

Example 14

1-(2-chlorophenyl)-5-[3-(methylsulfonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole

Example 14a

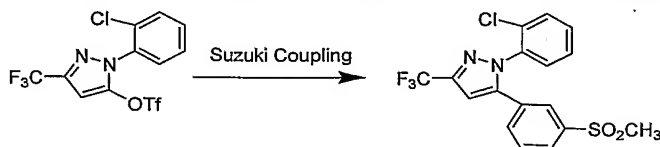
Preparation of 1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl trifluoromethanesulfonate



To a mixture of 1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-ol (0.52 g, 2 mmol) and 2,6-di-*tert*-butyl-4-methylpyridine (0.51 g, 1.25 equiv) in DCM (8 mL) was added triflic anhydride (374 μ L, 1.1 equiv) at -78°C . The mixture was warmed to 20°C and stirred overnight at 20°C . It was quenched with sat. aqueous NaHCO_3 and the aqueous layer was separated and extracted with DCM. The combined organic layers were washed with water and dried over Na_2SO_4 . Evaporation of solvent gave a crude, which was purified by column chromatography on silica gel eluting with EtOAc-hexane (1:4) to give the title compound (620 mg). $^1\text{H-NMR}$ (CDCl_3): δ 7.60-7.44 (m, 4H), 6.61 (s, 1H).

Example 14b

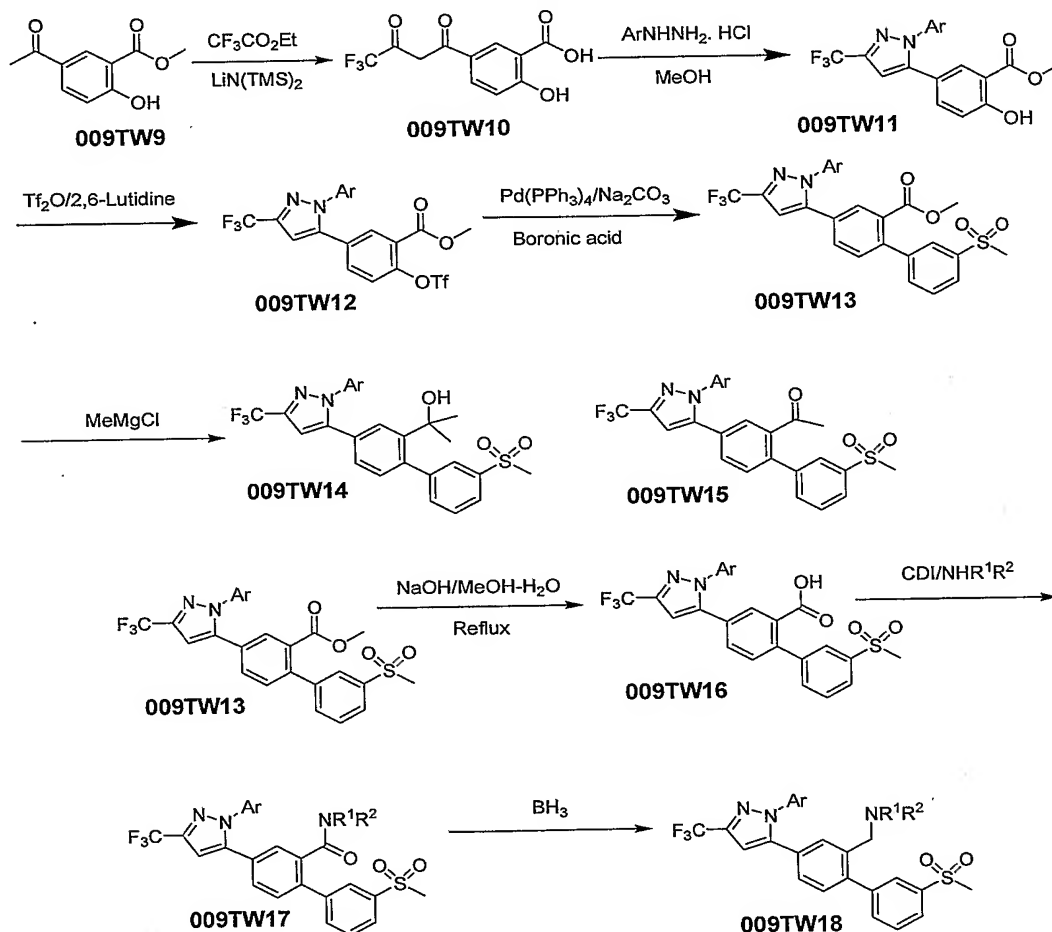
Preparation of 1-(2-chlorophenyl)-5-[3-(methylsulfonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole



1-(2-chlorophenyl)-5-[3-(methylsulfonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole

was prepared in a manner similar to that described in Examples 1c by using 1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl trifluoromethanesulfonate and 3-(methylsulfonyl)phenylboronic acid. $^1\text{H-NMR}$ (CDCl_3): δ 7.90 (1H, m), 7.76 (1H, d), 7.57-7.47 (3H, m), 7.46-7.42 (3H, m), 6.92 (1H, s), 2.92 (3H, s). MS (ES): 401 $[\text{M}+\text{H}]^+$.

5

Scheme 9

As depicted in Scheme 9, ester group on c-phenyl ring can be transformed into other functional groups such as carbinols and amides, ketones and methylamines. Claisen condensation of **009TW9** with an ester to form diketone **009TW10** was followed by condensation of **009TW10** with a hydrazine to form pyrazole product **009TW11**. Treatment of **009TW11** with triflic anhydride to form triflate **009TW12**. Suzuki coupling of **009TW12** with a boronic acid afforded product **009TW13**, which was treated with Grignard reagent to form carbinol **009TW16**, together with ketone **009TW15** as a minor product. Ester **009TW13** was hydrolyzed to give acid **009TW16**, which was transformed into amide **009TW17** via carbonyldiimidazole coupling. Reduction of **009TW17** with borane afforded amine **009TW18**.

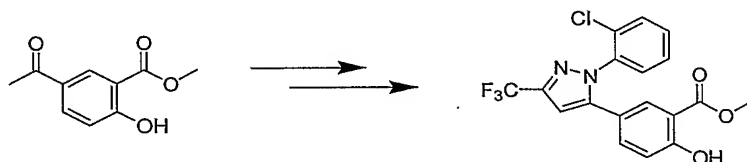
Example 15 and 16

2-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}propan-2-ol (15) and 1-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}ethanone (16)

5

Example 15a

Preparation of methyl 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-hydroxybenzoate

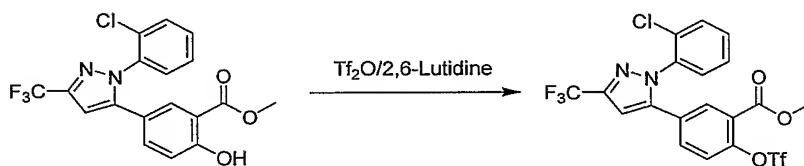


Methyl 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-hydroxybenzoate was prepared in a manner similar to that described in Examples 1b by using methyl 5-acetyl-2-hydroxybenzoate. MS (ES): 397 [M+H]⁺.

10

Example 15b

Preparation of methyl 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-(trifluoromethylsulfonyloxy)benzoate



To a solution of methyl 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-hydroxybenzoate (1.29 g, 3.25 mmol) and 2,6-lutidine (0.5 mL, 1.2 equiv) in DCM (15 mL) was added triflic anhydride (0.663 mL, 1.2 equiv) at -78 °C and the reaction solution was stirred for 1 h at -78 °C. After quenching with water, aqueous layer was separated and extracted with DCM. The combined organic layers were washed with saturated aqueous NaHCO₃ and water and dried over Na₂SO₄. Evaporation of solvent gave a crude, which was purified by column chromatography on silica gel eluting with EtOAc-hexane (1:4) to afford methyl 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-(trifluoromethylsulfonyloxy)benzoate (1.64 g). MS (ES): 529 [M+H]⁺.

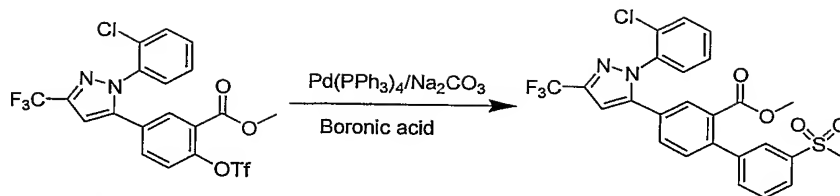
15

20

Example 15c

Preparation of methyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-carboxylate

25



Methyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-

(methylsulfonyl)biphenyl-2-carboxylate was prepared in a manner similar to that described in Examples 1c by using 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-2-

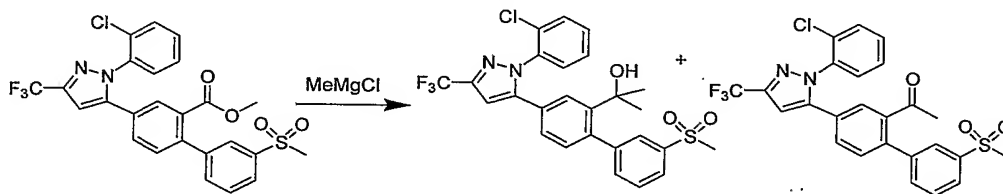
5 (trifluoromethylsulfonyloxy)benzoate and 3-(methylsulfonyl)phenylboronic acid. MS (ES): 535 [M+H]⁺.

Example 15d and 16

Preparation of 2-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-

(methylsulfonyl)biphenyl-2-yl}propan-2-ol (15) and 1-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-

pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}ethanone (16)



2-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}propan-2-ol and 1-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-

(methylsulfonyl)biphenyl-2-yl}ethanone were prepared in a manner similar to that described in

15 Examples 8d by using methyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-

(methylsulfonyl)biphenyl-2-carboxylate. 15d: ¹H-NMR (CDCl₃): δ 7.91 (m, 1H), 7.85 (d, 1H), 7.57-

7.50 (m, 4H), 7.47-7.41 (m, 2H), 7.37 (d, 1H), 7.20 (dd, 1H), 7.01 (s, 1H), 6.88 (s, 1H), 3.07 (s, 3H),

2.05 (s, 1H), 1.25 (s, 6H). MS(ES): 536 [M+H]⁺. 16: ¹H-NMR (CDCl₃): δ 7.95 (m, 1H), 7.87 (m, 1H),

7.61 (m, 1H), 7.57-7.43 (m, 7H), 7.38 (dd, 1H), 7.30 (d, 1H), 6.92 (s, 1H), 3.08 (s, 3H), 2.13 (s, 3H).

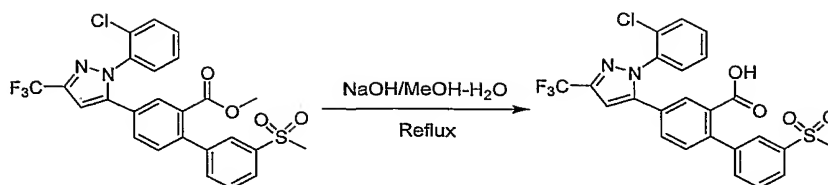
20 MS(ES): 518 [M+H]⁺

Example 17

(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl)(morpholino)methanone

Example 17a

25 Preparation of 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-carboxylic acid



A solution of methyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-carboxylate (1.37 g, 2.6 mmol) and NaOH (1 g, 25 mmol) in MeOH-H₂O (2:1, 16 mL) was refluxed for 2 h. After cooling, solid was removed and the filtrate was acidified with formic acid. Solid was collected by filtration and washed with water and dried under high vacuum to afford 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-carboxylic acid (1.05 g). MS(ES): 521 [M+H]⁺.

Example 17b

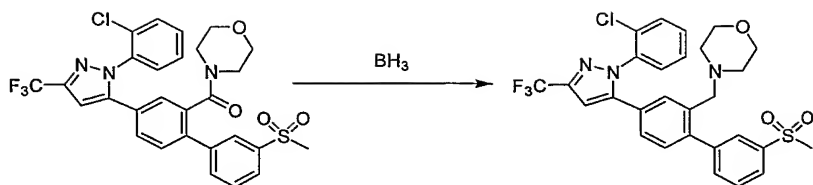
Preparation of 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl(morpholino)methanone



To a suspension of 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-carboxylic acid (0.52 g, 1 mmol) in DCM (6 mL) was added carbonyldimidazole (2.43 mg, 1.5 mmol) and the mixture was stirred for 2 h at 20 °C. Morpholine (0.175 mL, 2 mmol) was added and the mixture was stirred overnight at 20 °C. Evaporation of solvent gave a crude, which was purified by column chromatography on silica gel eluting with EtOAc-hexane (1:4 to 4:1) to afford 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl(morpholino)methanone (0.52 g). ¹H-NMR (CDCl₃): δ 7.97 (m, 2H), 7.77 (d, 1H), 7.64 (m, 1H), 7.58 (m, 1H), 7.46-7.24 (m, 5H), 6.89 (s, 1H), 3.55 (m, 3H), 3.33 (m, 2H), 3.08 (s, 3H), 2.87 (m, 2H), 2.69 (m, 1H). MS(ES): 590 [M+H]⁺.

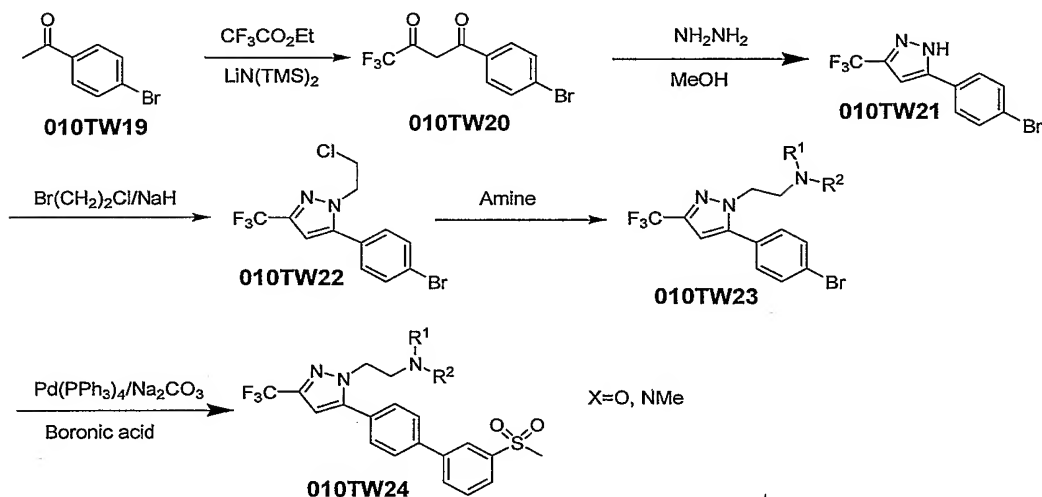
Example 18

Preparation of 4-((4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl)methyl)morpholine



To a solution of BH_3 (1 M, 4 mL) in THF was added 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl(morpholino)-methanone (460 mg, 0.78 mmol) and the solution was stirred overnight at 20 °C. MeOH was added to quench borane and solvent was evaporated to afford a crude, which was purified by column chromatography on silica gel eluting with MeOH-DCM (1:19) to afford 4-((4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-3'-(methylsulfonyl)biphenyl-2-yl)methyl)morpholine (0.2 g). $^1\text{H-NMR}$ (CDCl_3): δ 8.25 (m, 1H), 7.93 (m, 1H), 7.72 (m, 1H), 7.60 (m, 1H), 7.55 (m, 1H), 7.49-7.39 (m, 3H), 7.33-7.26 (m, 2H), 7.18 (m, 1H), 6.85 (s, 1H), 3.58 (m, 4H), 3.16 (s, 3H), 3.07 (s, 3H), 2.14 (m, 4H). MS(ES): 576 $[\text{M}+\text{H}]^+$.

Scheme 10

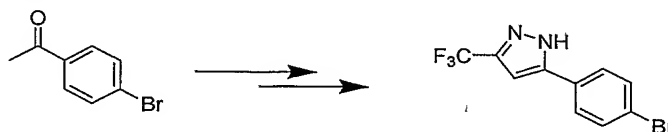


As depicted in Scheme 10, aminoethylpyrazoles were synthesized *via* alkylation of pyrazole with 1,2-dihaloethane followed by subsequent alkylation of amines. Claisen condensation of ketone 010TW19 with an ester to form diketone 010TW20 was followed by addition-cyclization with hydrazine to give pyrazole 010TW21. Alkylation of 010TW21 afforded chloroethylpyrazole 010TW22, which was used for alkylation of amines to form amines 010TW23. Final Suzuki coupling of 010TW23 with a boronic acid afforded 010TW24.

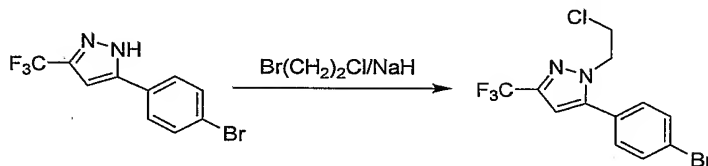
Example 19

4-(2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}ethyl)morpholine

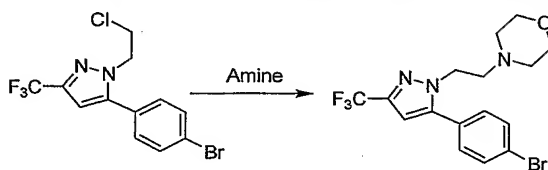
Example 19a

Preparation of 5-(4-bromophenyl)-3-(trifluoromethyl)-1H-pyrazole

5-(4-bromophenyl)-3-(trifluoromethyl)-1H-pyrazole was prepared in a manner similar to that described in Examples 1b by using 4'-bromoacetophenone. MS (ES): 291 [M+H]⁺.

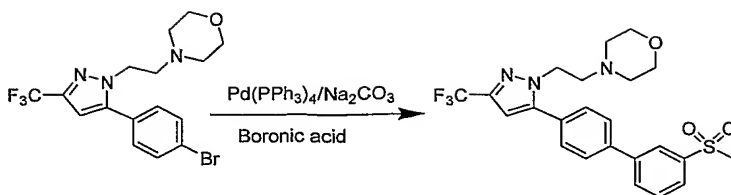
Example 19b*Preparation of 5-(4-bromophenyl)-1-(2-chloroethyl)-3-(trifluoromethyl)-1H-pyrazole*

To a solution of 5-(4-bromophenyl)-3-(trifluoromethyl)-1H-pyrazole (2.05 g, 7 mmol) and 1-bromo-2-chloroethane (0.71 mL, 1.2 equiv) in DMF (30 mL) was added NaH (0.42g, 60%, 1.5 equiv) and the mixture was stirred overnight at 20 °C. The reaction was quenched by water. Solid was collected and washed by water and dried under high vacuum to give a crude, which was purified by column chromatography eluting with MeOH-DCM (6:96) to give 5-(4-bromophenyl)-1-(2-chloroethyl)-3-(trifluoromethyl)-1H-pyrazole (400 mg) as a minor product. ¹H-NMR (CDCl₃): δ 7.64 (d, 1H), 7.31 (d, 1H), 6.54 (s, 1H), 4.41 (t, 2H), 3.93 (t, 2H).

Example 19c*Preparation of 4-(2-(5-(4-bromophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)morpholine*

A solution of 5-(4-bromophenyl)-1-(2-chloroethyl)-3-(trifluoromethyl)-1H-pyrazole (200 mg, 0.56 mmol) and morpholine (0.245 mL, 5 equiv) in acetonitrile (2 mL) was stirred overnight at 90 °C. Evaporation of solvent gave of 4-(2-(5-(4-bromophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)morpholine. MS (ES): 404 [M+H]⁺.

Example 19d*Preparation of 4-(2-(5-(3'-(methylsulfonyl)biphenyl-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)morpholine*



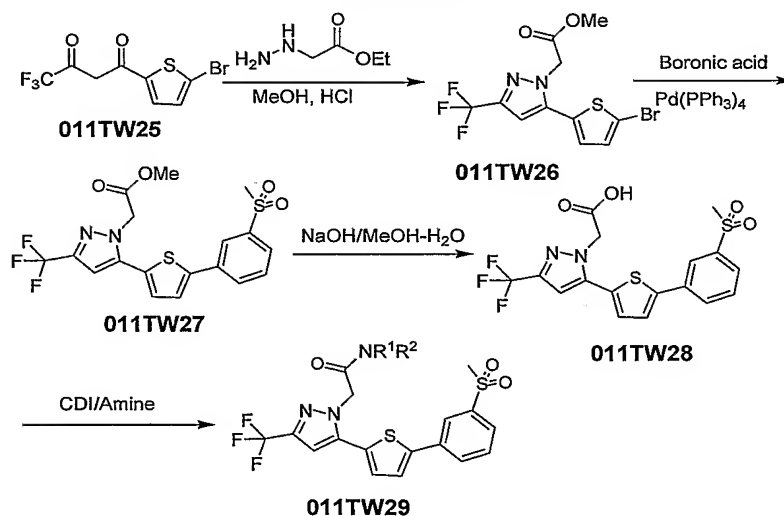
4-(2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}ethyl)morpholine was prepared in a manner similar to that described in Examples 1c by using the above crude product and (3-methylsulfonyl)phenylboronic acid. ¹H-NMR (CDCl₃): δ 8.21 (m, 1H), 7.95 (m, 2H), 7.76-7.53 (m, 4H), 7.46 (m, 1H), 6.58 (s, 1H), 4.30 (t, 2H), 3.59 (m, 4H), 3.13 (t, 3H), 2.84 (t, 2H), 2.36 (m, 4H). MS (ES): 480 [M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- 1-methyl-4-(2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}ethyl)piperazine MS(ES): 493 [M+H]⁺.

10

Scheme 11



As depicted in Scheme 11, a carbonyl group can be introduced into the pyrazole system. Diketone **011TW25** reacted with a hydrazine to form pyrazole **011TW26**. Suzuki coupling of **011TW26** with a boronic acid afforded **011TW27**, whose ester group was then hydrolyzed to give acid **011TW28**. CDI coupling of acid **011TW28** with amines afforded amides **011TW29**.

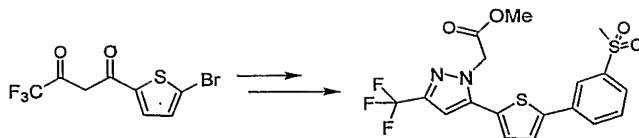
Example 20

4-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}morpholine

Example 20a

Preparation of Methyl 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)acetate

20

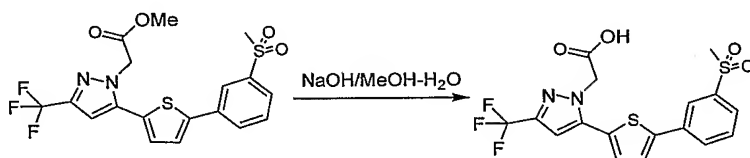


Methyl 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)acetate was prepared in a manner similar to that described in Examples 1c by using methyl 2-hydrazinoacetate (in MeOH). MS(ES): 445 $[M+H]^+$.

5

Example 20b

Preparation of 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)acetic acid

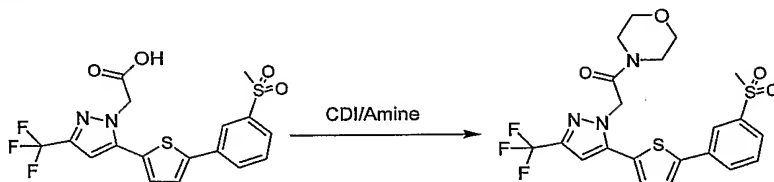


2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)acetic acid was prepared in a manner similar to that described in Example 17a MS(ES): 431 $[M+H]^+$.

10

Example 20c

Preparation of 4-([5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl)morpholine



15

4-([5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl)morpholine was prepared in a manner similar to that described in Examples 19.

$^1\text{H-NMR}$ (CDCl_3): δ 8.15 (s, 1H), 7.90 (m, 1H), 7.86 (m, 1H), 7.63 (m, 1H), 7.42 (d, 1H), 7.32 (d, 1H), 6.73 (s, 1H), 5.12 (s, 2H), 3.76-3.72 (m, 4H), 3.66 (t, 2H), 3.57 (t, 2H), 3.11 (s, 3H). MS (ES): 500 $[M+H]^+$.

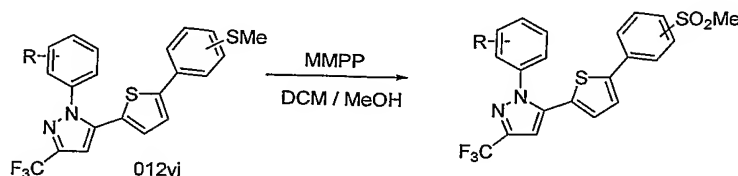
20

The following compounds are prepared essentially according to the previous examples:

- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-oxo-2-pyrrolidin-1-ylethyl)-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 484 $[M+H]^+$.
- 1-([5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl)piperidine, MS(ES): 498 $[M+H]^+$.

25

- 5- $\{5-[3-(\text{methylsulfonyl})\text{phenyl}]-2\text{-thienyl}\}-1-(2\text{-oxo-2-pyrrolidin-1-ylethyl})-3-(\text{trifluoromethyl})-1\text{H-pyrazole}$, MS(ES): 484 $[\text{M}+\text{H}]^+$.

Scheme 12

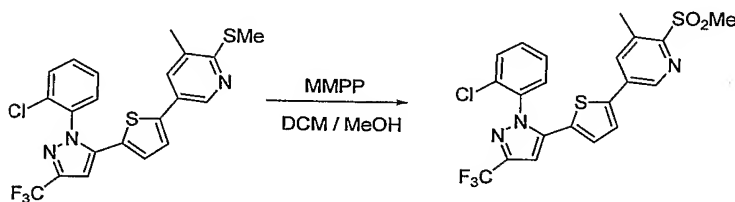
The starting materials (**012vi**) were prepared in similar manner of Scheme 1, followed by further transformations to make final products as described in Scheme 12.

Example 21

5- $\{5-[2-(2\text{-Chloro-phenyl})-5\text{-trifluoromethyl-}2\text{H-pyrazol-}3\text{-yl}]\text{-thiophen-}2\text{-yl}\}-2\text{-methanesulfonyl-}3\text{-methyl-pyridine}$

Example 21a

Preparation of 5- $\{5-[2-(2\text{-Chloro-phenyl})-5\text{-trifluoromethyl-}2\text{H-pyrazol-}3\text{-yl}]\text{-thiophen-}2\text{-yl}\}-2\text{-methanesulfonyl-}3\text{-methyl-pyridine}$

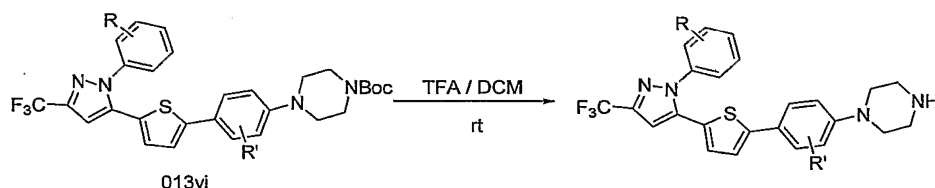


5- $\{5-[2-(2\text{-Chloro-phenyl})-5\text{-trifluoromethyl-}2\text{H-pyrazol-}3\text{-yl}]\text{-thiophen-}2\text{-yl}\}-3\text{-methyl-}2\text{-methanesulfonyl-pyridine}$ (158 mg, 0.34 mmol) was dissolved in 15 mL mixture of dichloromethane and methanol (5 : 1, V/V). MMPP (magnesium monoperoxyphthalate hexahydrate, 424 mg, 0.75 mmol, 80% tech.) was added then. The mixture was stirred at room temperature for 2 hrs, then diluted with dichloromethane, and filtered. The filtrate was washed with saturated NaHCO_3 and brine, dried over Na_2SO_4 , and concentrated *in vacuo*. The crude product was purified by column chromatography on silica gel (10 \rightarrow 40% EtOAc/Hexane) to give a white solid (116 mg, 69% yield). $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 2.73 (s, 3H), 3.36 (s, 3H), 6.89(d, $J=3.9$, 1H), 6.93 (s, 1H), 7.27 (m, 1H), 7.58 – 7.49 (m, 4H), 7.70 – 7.69 (m, 1H), 8.52 – 8.51(m, 1H). MS (ES): 498.3 $[\text{M}+\text{H}]^+$.

The following compounds were made in similar manner by oxidation of appropriate sulfides:

- 2-(ethylsulfonyl)-3-methyl-5-(5- $\{3-(\text{trifluoromethyl})-1-[2-(\text{trifluoromethyl})\text{phenyl}]-1\text{H-pyrazol-}5\text{-yl}\}-2\text{-thienyl}\})\text{pyridine}$; MS (ES): 546.2 $[\text{M}+\text{H}]^+$;

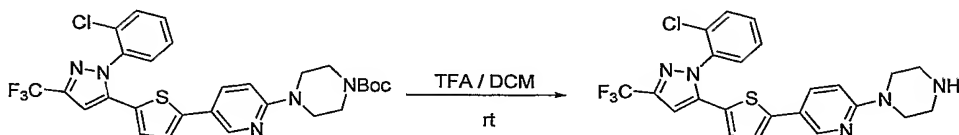
- 3-methyl-5-(5-{1-[2-(methoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl)-2-(methylsulfonyl)pyridine; MS (ES): 494.3 $[M+H]^+$;
- 5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(ethylsulfonyl)-3-methylpyridine; MS (ES): 512.3 $[M+H]^+$;
- 5 • 5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylsulfonyl)pyridine; MS (ES): 532.4 546.1 $[M+H]^+$;
- 3-methyl-2-(methylsulfonyl)-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]-2-thienyl)pyridine; MS (ES): 532.2 $[M+H]^+$;
- 5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-3-methyl-2-(methylsulfonyl)pyridine; MS (ES): 532.4, 536.2 $[M+H]^+$;

Scheme 13

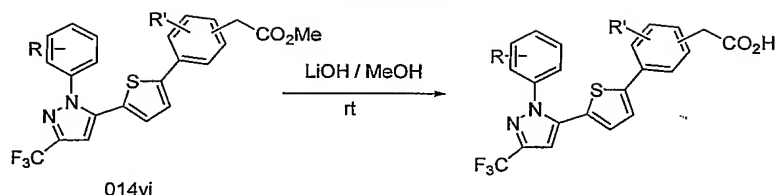
The starting materials (013vi) were prepared in similar manner of Scheme 1 followed by further transformations to make final products as described in Scheme 13.

Example 22

Preparation of 1-(5-{5-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-pyridin-2-yl)-piperazine



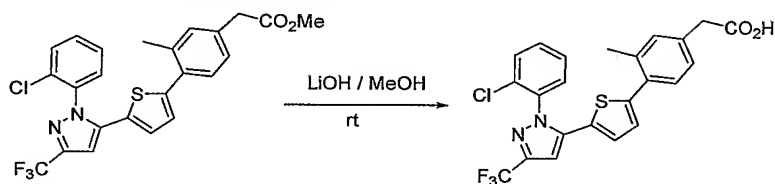
4-(5-{5-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-pyridin-2-yl)-piperazine-1-carboxylic acid *tert*-butyl ester (196 mg, 0.33 mmol) was mixed with 4 mL 50% trifluoromethylacetic acid in dichloromethane, and stirred at room temperature for 2 hrs. All solvent was removed; the residue was redissolved in dichloromethane and neutralized to pH 7 by saturated NaHCO_3 . The organic layer was washed with brine, dried over Na_2SO_4 , and concentrated *in vacuo* to give a solid that was washed several times with dichloromethane to give yellow solid (75 mg, 47% yield). $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 3.32 – 3.29 (m, 4H), 3.94 – 3.91 (m, 4H), 6.67 (d, $J = 8.8$, 1H), 6.79 (d, $J = 3.8$, 1H), 6.87 (s, 1H), 7.02 (d, $J = 3.8$, 1H), 7.57 – 7.45 (m, 4H), 7.63 (dd, $J = 8.8$, $J = 2.5$, 1H), 8.34 (d, $J = 2.2$, 1H). MS (ES) 490.3, 492.3, $[M+H]^+$.

Scheme 14

The starting materials (**014vi**) were prepared in similar manner of Scheme 1 by further transformations to make final products as described in Scheme 14

Example 23

Preparation of (4-{5-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-3-methyl-phenyl)-acetic acid



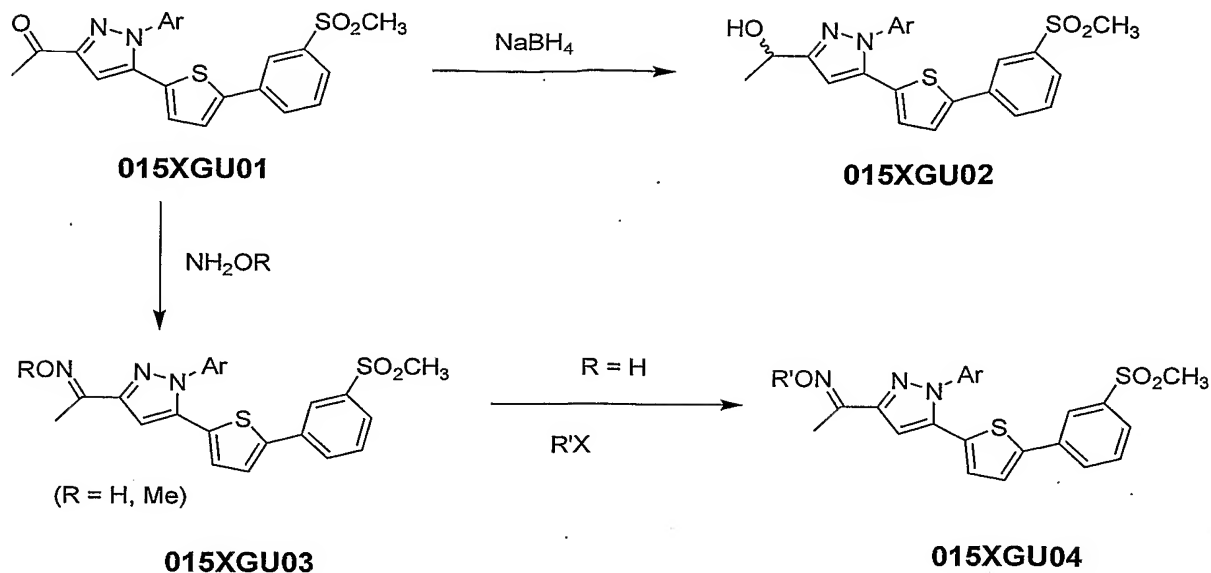
(4-{5-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-3-methyl-

phenyl)-acetic acid methyl ester (122 mg, 0.25 mmol) was dissolved in 6 mL mixture of THF and water (3 : 1, V/V). Lithium hydroxide monohydrate (2.3 mg, 0.55 mmol) was then added. After stirring at room temperature for 2 hrs, the mixture was neutralized to pH 7 by 1N HCl, and then extracted with ethyl acetate. The combined organic layers were washed with brine, dried over Na₂SO₄, and concentrated *in vacuo*. The crude product was purified by reverse HPLC to give a white solid (66 mg, 55% yield). ¹H-NMR (400MHz, CDCl₃): δ 2.33 (s, 3H), 3.65 (s, 2H), 6.88 – 6.84 (m, 3H), 7.17 – 7.11 (m, 1H), 7.17 (m, 1H), 7.27 (m, 1H), 7.56 - 7.42 (m, 4H). MS (ES) 477.2, [M+H]⁺.

The following compounds were made in similar manner by hydrolysis of corresponding phenylacetate ester precursors.

- (3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenyl)acetic acid; MS (ES): 481.1, 484.4 [M+H]⁺;
- 2-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)-2-methylpropanoic acid; MS (ES): 492.1, 494.3 [M+H]⁺;
- (5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)acetic acid; MS (ES): 464.0, 466.1 [M+H]⁺;
- [3-methyl-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl]-2-thienyl)phenyl]acetic acid; MS (ES): 512.3 [M+H]⁺;

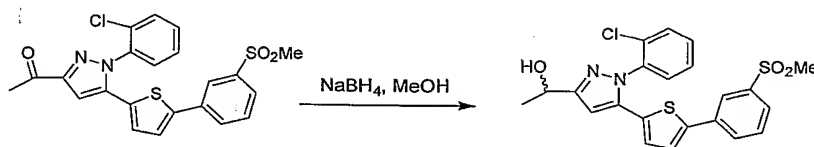
Scheme 15



As depicted in Scheme 15, a ketone can be transformed into alcohols and oximes, which can be alkylated. Ketone **015XGU01** was reduced with NaBH_4 to a secondary alcohol **015XGU02**. Oxime **015XGU03** was obtained by treatment of ketone **015XGU01** with hydroxylamine in the presence of a base. Oxime **015XGU03** was alkylated with alkyl chloride or alkyl bromide to give the O-alkylated oxime **015XGU04**.

Example 24

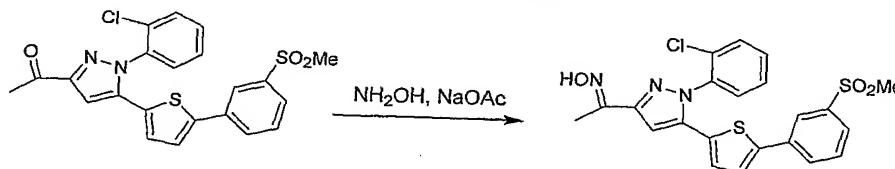
Preparation of 1-[1-(2-Chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanol



NaBH_4 (600mg) was added at 0 °C to a suspension of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone (460mg, 1mmol) in a mixture of MeOH-THF (1:3, 100mL), and the resulting mixture was stirred at rt for 4h. Water was added, and the solvent was removed *in vacuo*. The residue was partitioned between water and DCM, the aqueous was extracted with DCM. The combined extracts were washed with brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-80% EtOAc/hexanes) to give the title compound as a white solid (423mg, 92%). ^1H NMR (CDCl_3): δ 8.04 (m, 1H), 7.83-7.81 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.43 (m, 5H), 7.21 (d, 1H), 6.75 (d, 1H), 6.64 (s, 1H), 5.05 (q, 1H), 3.07 (s, 3H), 2.05 (brs, 1H), 1.63 (d, 3H). MS(ES): 459 $[\text{M}+\text{H}]^+$, 441 (M-OH).

Example 25

Preparation of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone oxime



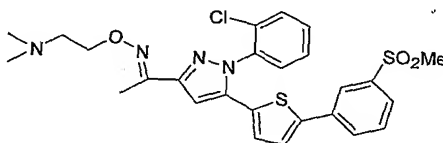
5 A mixture of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone (120mg, 0.263mmol), NH_2OHHCl (92mg, 1.32mmol), and NaOAc (132mg, 1.6mmol) in a mixture of MeOH- H_2O (2:1, 15mL) was stirred at 85°C in a sealed vial for 11h. The solvent was removed *in vacuo*, and the residue was purified by flash chromatography (0-60% EtOAc/hexanes) to give the title compound as a white solid (115mg, 93%). ^1H NMR (CDCl_3): δ 8.04 (m, 1H), 7.83-7.81 (m, 1H), 7.73-7.71 (m, 1H), 7.57-7.43 (m, 5H), 7.21 (d, 1H), 6.97 (s, 1H), 6.76 (d, 1H), 3.09 (s, 3H), 2.37 (s, 3H). MS(ES): 472 $[\text{M}+\text{H}]^+$.

The following compound is prepared essentially according to the previous examples:

- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone O-methyloxime MS(ES): 486 $[\text{M}+\text{H}]^+$

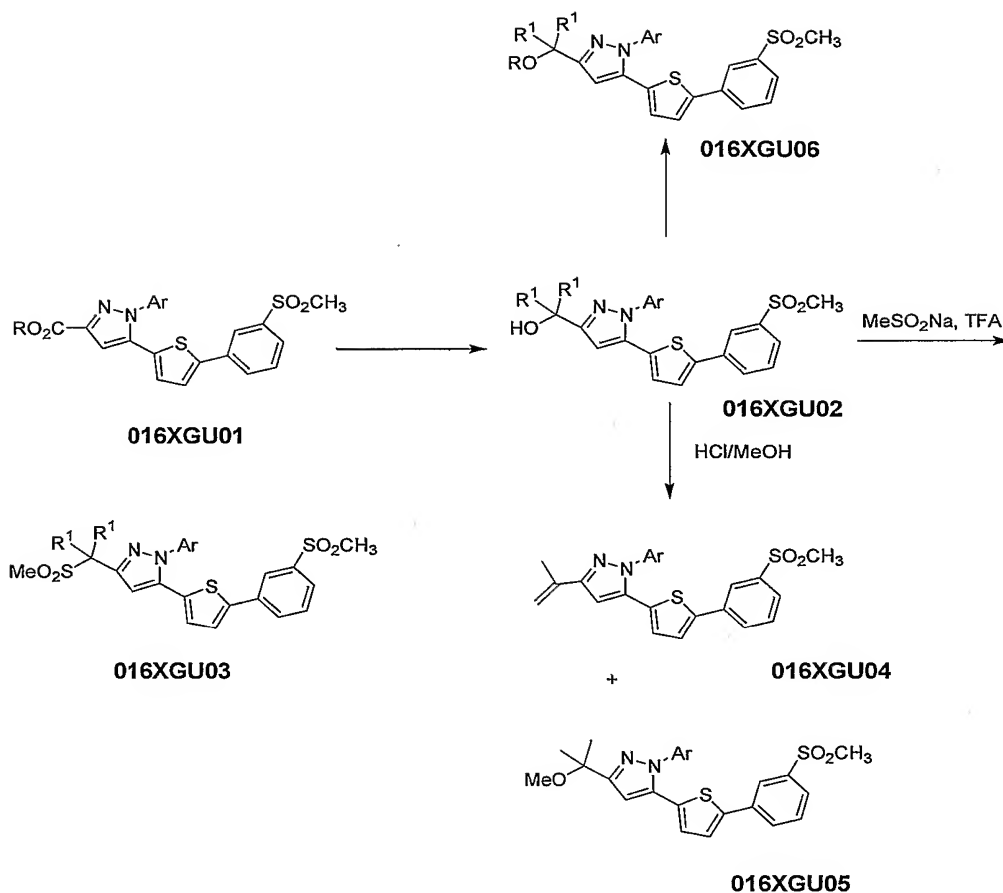
Example 26

Preparation of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone O-[2-(dimethylamino)ethyl]oxime



20 A mixture of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone oxime (196mg, 0.415mmol), KOH (142mg, 2.3mmol), 2-(dimethylamino)ethyl chloride hydrochloride (185mg, 1.3mmol), and anhydrous DMSO (5mL) was stirred at 60°C in a sealed vial for 3h. The reaction mixture was diluted with water, extracted with ether. The combined extracts were washed with brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The residue was purified by flash chromatography (0-30% MeOH/DCM) to give the title compound as a white solid. (50mg, 22%). ^1H NMR (CDCl_3): δ 8.04(d, 1H), 7.83-7.81 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.43 (m, 5H), 7.21 (d, 1H), 7.00 (s, 1H), 6.76 (d, 1H), 4.38 (t, 2H), 3.07 (s, 3H), 2.78 (m, 2H), 2.40 (brs, 6H), 2.31 (s, 3H).

Scheme 16

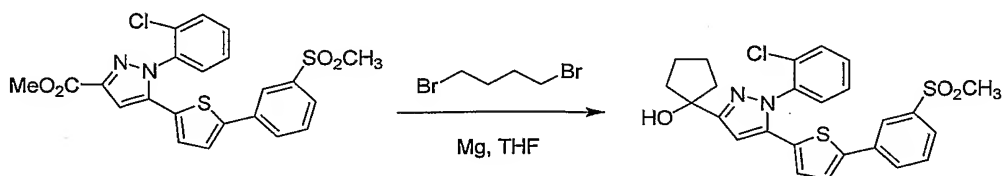


As depicted in Scheme 16, A carbinol can be transformed into ethers, alkenes and sulfoxide. Ester **016XGU01** was treated with EtMgBr in the presence of Ti(OPr-i)₄ or 1,4-butane dimagnesiumbromide to give the cyclopropanol or cyclopentanol **016XGU02**. The carbinol was alkylated with RX to give **016XGU06**. The carbinol reacted with MeSO₂Na in the presence of acid such as TFA to give **016XGU03** and the corresponding olefin **016XGU04**. The olefin **016XGU04** and methyl ether **016XGU05** were obtained by treatment of the carbinol with HCl/MeOH.

10

Example 27

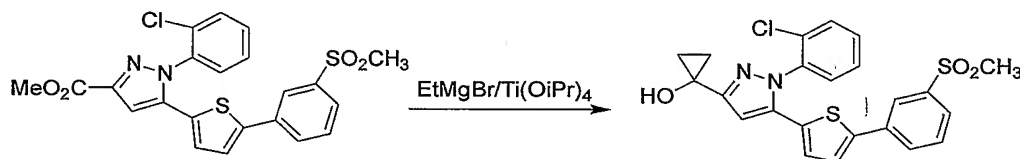
Preparation of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopentanol



Magnesium turnings (300mg, 12.5mmol) was introduced into a oven-dried flask under N₂, covered with anhydrous THF (150mL), and a solution of dibromobutane (0.72mL, 6.08mmol) in anhydrous THF (20mL) was added dropwise at ambient temperature at such a rate that the temperature of the reaction mixture did not rise above 40°C. The mixture was stirred at ambient temperature for 1h, and the magnesium turnings disappeared. 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (2.37g, 5mmol) was added as a solid, and the resulting dark-purple solution was stirred at room temperature under N₂ for 1h. At 0°C aqueous NH₄Cl solution was added, and then extracted with EtOAc. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-60% EtOAc/hexanes) to afford the title compound as a white solid (1.4g, 56%).
¹HNMR (CDCl₃): δ 8.04(d, 1H), 7.83-7.81(m, 1H), 7.74-7.71 (m, 1H), 7.57-7.52 (m, 3H), 7.48-7.44 (m, 2H), 7.20 (d, 1H), 6.74 (d, 1H), 6.63 (s, 1H), 3.07 (s, 3H), 2.42 (brs, 1H), 2.20-1.83 (m, 8H). MS(ES) 499 [M+H]⁺, 481 (M-OH).

Example 28

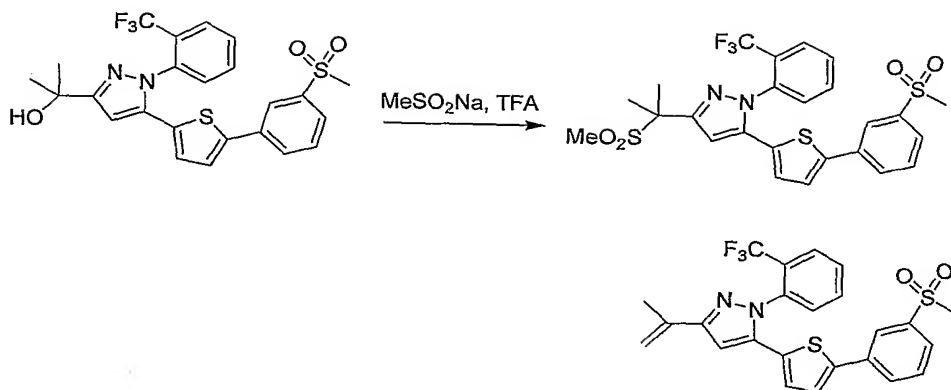
Preparation of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl] cyclopropanol



A solution of EtMgBr in THF (1.0M, 11mL) was added dropwise at rt to a stirred solution of 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (950mg, 2mmol) and Ti(OiPr)₄ (0.7mL, 2.4mmol) in anhydrous THF (50mL) under N₂. The resulting dark mixture was stirred at rt for 2h. At 0°C aqueous NH₄Cl solution was added, extracted with Et₂O. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified first by flash chromatography (0-60% EtOAc/hexanes) and then by reverse HPLC to give the title compounds as a white solid (85mg, 0.1%).
¹HNMR (CDCl₃): δ 8.04 (d, 1H), 7.83-7.81 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.43 (m, 5H), 7.2 (d, 1H), 6.72 (d, 1H), 6.50 (s, 1H), 3.07 (s, 3H), 2.92 (brs, 1H), 1.31 (m, 2H), 1.17 (m, 2H). MS(ES): 471[M+H]⁺, 453 (M-OH).

Example 29

Preparation of 3-[1-methyl-1-(methylsulfonyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole, and 3-(1-methylethenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole,



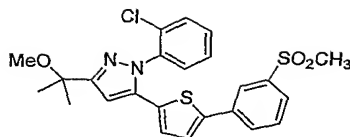
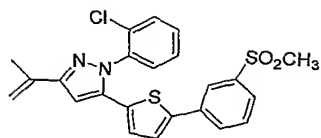
TFA (1mL) was added dropwise at 0°C to a stirred mixture of the carbinol (270mg, 0.533mmol) and MeSO₂Na (280mg, 2.74mmol) in CHCl₃ (8mL), the resulting mixture was stirred at rt overnight. After dilution with water, the mixture was poured into 12% aqueous NH₄OH solution, and extracted with DCM. The combined extracts were washed with water and brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-80% EtOAc/hexanes) to give the title compounds as white solid. (152mg, 50%). ¹HNMR (CDCl₃): δ 8.02 (d, 1H), 7.9 (m, 1H), 7.83 (m, 1H), 7.71 (m, 3H), 7.55 (m, 1H), 7.46 (m, 1H), 7.20 (d, 1H), 6.88 (s, 1H), 6.74 (d, 1H), 3.07 (s, 3H), 2.77 (s, 3H), 1.88 (s, 6H). MS(ES): 569 [M+H]⁺; (40mg). ¹HNMR (CDCl₃): δ 8.03 (d, 1H), 7.87-7.81 (m, 2H), 7.73-7.66 (m, 3H), 7.57-7.17 (m, 2H), 7.17 (d, 1H), 6.78 (s, 1H), 6.65 (d, 1H), 5.62 (s, 1H), 5.18 (m, 1H), 3.07 (s, 3H), 2.19 (s, 3H). MS(ES): 489 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 2-(3-[1-methyl-1-(methylsulfonyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl)-3-(trifluoromethyl)pyridine, MS(ES): 570[M+H]⁺
- 2-[3-(1-methylethenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl]-3-(trifluoromethyl)pyridine, MS(ES): 490 [M+H]⁺
- 3-(3-[1-methyl-1-(methylsulfonyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl)-2-(trifluoromethyl)pyridine MS(ES): 570[M+H]⁺
- 3-(1-methylethenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole, MS(ES): 490 [M+H]⁺
- 3-(3-[1-methyl-1-(methylsulfonyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl)-2-(trifluoromethyl)pyridine, MS(ES): 570[M+H]⁺

Example 30

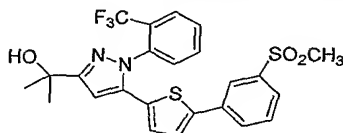
Preparation of 1-(2-chlorophenyl)-3-(1-methylethenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole and 1-(2-chlorophenyl)-3-[1-methyl-1-(methyloxy)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole



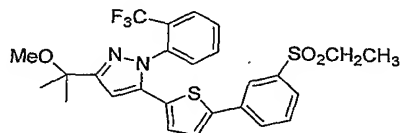
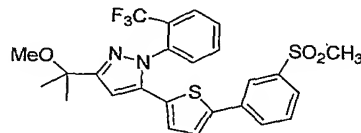
A solution of HCl/MeOH (1.25M, 8mL) was added to stirred solution of 2-{1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl}-propan-2-ol (430mg, 0.864mmol) in CHCl_3 , and the reaction mixture was stirred at 85°C in a sealed vial for 6h. The solvent was removed *in vacuo*, and the residue was purified by flash chromatography (0-50% EtOAc/hexanes) to give the title compounds as white solid. (110mg, 28%): ^1H NMR (CDCl_3): δ 8.05 (m, 1H), 7.83-7.81 (m, 1H), 7.74-7.72 (m, 1H), 7.57-7.52 (m, 3H), 7.49-7.41 (m, 2H), 7.20 (d, 1H), 6.79 (s, 1H), 6.72 (d, 1H), 5.64 (s, 1H), 5.18 (m, 1H), 3.07 (s, 3H), 2.21 (s, 3H). MS(ES): 455 $[\text{M}+\text{H}]^+$. (94mg, 22%): ^1H NMR (CDCl_3): δ 8.04 (m, 1H), 7.83-7.80 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.52 (m, 3H), 7.50-7.41 (m, 2H), 7.20 (d, 1H), 6.74 (d, 1H), 6.67 (s, 1H), 3.23 (d, 3H), 3.07 (s, 3H), 1.63 (s, 6H). MS(ES): 455 (M-OMe).

Example 31

Preparation of 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[1-methyl-1-(methoxy)ethyl]-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole and 5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-3-[1-methyl-1-(methoxy)ethyl]-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole



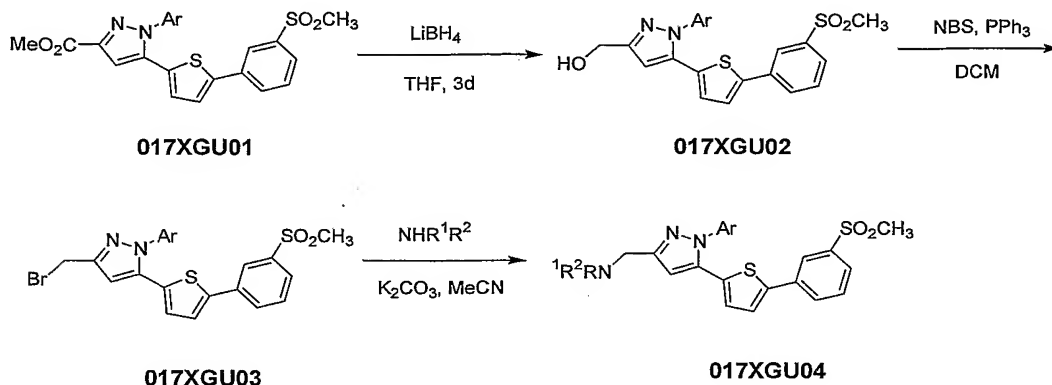
NaH/ MeI



NaH (60% in mineral oil, 40mg, 1mmol) was added at 0°C to a stirred mixture of 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl})propan-2-ol (260mg, 0.5mmol), MeI (47 μL , 0.75mmol) and anhydrous DMF (8mL), and the resulting mixture was stirred at rt for 3h. At 0°C water was added to quench the reaction, then extracted with DCM. The combined extracts were washed with water and brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The crude product was purified first by flash chromatography (0-40% EtOAc/hexanes), then by normal phase HPLC to give the two title compounds as white solid. (110mg, 41%). ^1H NMR (CDCl_3): δ 8.03 (m, 1H), 7.87-7.81 (m, 2H), 7.73-7.66 (m, 3H), 7.57-7.50 (m, 2H), 7.18 (d, 1H), 6.66 (m, 2H), 3.21 (s, 3H), 3.07 (s, 3H), 1.63 (s, 6H). MS(ES): 521 $[\text{M}+\text{H}]^+$. (71mg, 26%). ^1H NMR (CDCl_3): δ 7.98 (m, 1H),

7.87-7.85 (m, 1H), 7.79-7.76 (m, 1H), 7.72-7.66 (m, 3H), 7.56-7.50 (m, 2H), 7.18 (d, 1H), 6.66 (m, 2H), 3.21 (s, 3H), 3.13 (q, 2H), 1.63 (s, 6H), 1.29 (t, 3H). MS(ES): 535 [M+H]⁺.

Scheme 17

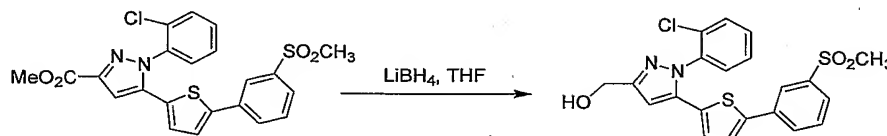


5

As depicted in Scheme 17, An ester can be transformed into alcohols and amines. Ester **017XGU01** was reduced with lithium borohydride to give primary alcohol **017XGU02** in good yields. Alcohol **017XGU02** was converted to the corresponding bromide **017XGU03** by treatment with NBS/PPh₃. Amine **017XGU04** was obtained by treatment of bromide **017GU03** with the corresponding an amine.

Example 32

Preparation of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methanol



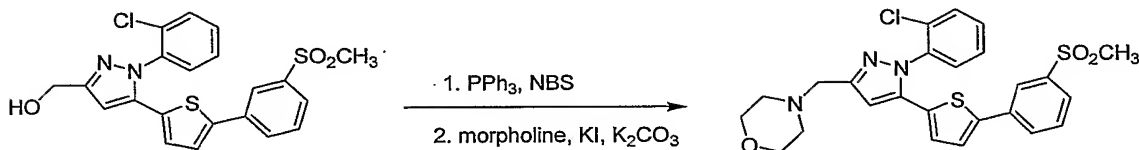
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LiBH₄ (1.0M in THF, 14mL, 28mmol) was added dropwise at rt to a stirred solution of 1-(2-chloro-phenyl)-5-[5-[3-(methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (4.38g, 9.26mmol) in anhydrous THF (100mL) under N₂, and the resulting mixture was stirred at rt for 3d. Acetone (2mL) and water (2mL) was added successively at 0°C and the solid was filtered off. The filtrate was concentrated *in vacuo*. The residue was taken up in EtOAc (200mL), washed with water and brine, dried over Na₂SO₄ and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-90% EtOAc/hexanes) to give the title compound as a white solid (3.1g, 75%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.84-7.81 (m, 1H), 7.74-7.72 (m, 1H), 7.58-7.44 (m, 5H), 7.21 (d, 1H), 6.76 (d, 1H), 6.69 (s, 1H), 4.80 (s, 2H), 3.07 (s, 3H), 1.65 (brs, 1H). MS(ES): 445 [M+H]⁺.

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Example 33

Preparation of 4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}morpholine



PPh₃ (4.36g, 16.62mmol) was added at 0°C to a stirred solution of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methanol (6.15g, 13.85mmol) in dry DCM. After 30min, NBS (2.72g, 15.28mmol) was added portionwise at 0°C, and the mixture was stirred at rt overnight. The solvent was removed *in vacuo*, and the crude product was purified by flash chromatography (0-50%EtOAc/hexanes) to afford 3-bromomethyl-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-thiophen-2-yl]-1H-pyrazole as a pale-yellow solid (3.6g, 54%).

A mixture of 3-bromomethyl-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-thiophen-2-yl]-1H-pyrazole (51mg, 0.1mmol), K₂CO₃ (42mg, 0.3mmol), KI (10mg), and morpholine (0.3mmol) in anhydrous MeCN (5mL) was stirred at 90°C for 6h under N₂. The solid was filtered off, and the filtrate was concentrated *in vacuo*. The crude product was purified by flash chromatography (0-80% EtOAc/hexanes) to give the title compound as a pale-yellow solid (50mg, 96%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.82 (m, 1H), 7.72 (m, 1H), 7.57-7.43(m, 5H), 7.20 (d, 1H), 6.75 (d, 1H), 6.66 (s, 1H), 3.77 (m, 4H), 3.66 (s, 2H), 3.07 (s, 3H), 2.60 (m, 4H). MS(ES): 514 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-methylpiperazine, MS(ES): 527 [M+H]⁺
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylmethyl)-1H-pyrazole, MS(ES): 498 [M+H]⁺
- 2-(4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazin-1-yl)pyrimidine, MS(ES): 591 [M+H]⁺
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-(furan-2-ylmethyl)-N-methylmethanamine, MS(ES): 538 [M+H]⁺
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-(pyridin-2-ylmethyl)methanamine, MS(ES): 535 [M+H]⁺
- Phenylmethyl 4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-3-oxopiperazine-1-carboxylate, MS(ES): 661 [M+H]⁺

- 1-(2-chlorophenyl)-3-(1H-imidazol-1-ylmethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole, MS(ES): 495 [M+H]⁺
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(2-thienylmethyl)methanamine, MS(ES): 554 [M+H]⁺
- 5 • 3-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl](furan-2-ylmethyl)amino]propanenitrile, MS(ES): 577 [M+H]⁺
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2,2,2-trifluoro-N-(furan-2-ylmethyl)ethanamine, MS(ES): 606 [M+H]⁺
- 10 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(furan-2-ylmethyl)propan-2-amine, MS(ES): 566 [M+H]⁺
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(furan-2-ylmethyl)cyclopropanamine, MS(ES): 564 [M+H]⁺
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(furan-2-ylmethyl)-2-methylpropan-2-amine, MS(ES): 580 [M+H]⁺
- 15 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(furan-2-ylmethyl)cyclohexanamine, MS(ES): 606 [M+H]⁺
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(3,5-dimethylisoxazol-4-yl)methyl]-N-methylmethanamine, MS(ES): 567 [M+H]⁺
- 20 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(pyridin-4-ylmethyl)ethanamine, MS(ES): 563 [M+H]⁺
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(pyridin-4-ylmethyl)methanamine, MS(ES): 549 [M+H]⁺
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(1,3-oxazol-2-ylmethyl)methanamine, MS(ES): 539 [M+H]⁺
- 25 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methyl-2-pyridin-2-ylethanamine, MS(ES): 563 [M+H]⁺.
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-methyl-N-(1-methylethyl)propan-2-amine MS(ES): 542 [M+H]⁺.
- 3-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl](ethyl)amino]propanenitrile, MS(ES): 525 [M+H]⁺,
- 30 • (1S)-N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methyl-1-phenylethanamine, MS(ES): 562 [M+H]⁺.

- N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methyl-2-phenylethanamine, MS(ES): 562 [M+H]⁺.
- 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(phenylmethyl)piperidine; MS (ES): 602 [M+H]⁺;
- 5 • ethyl 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine-2-carboxylate; MS (ES): 584 [M+H]⁺;
- 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(phenylmethyl)piperazine; MS (ES): 603 [M+H]⁺;
- ethyl N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(phenylmethyl)glycinate; MS (ES): 620 [M+H]⁺;
- 10 • 4-{{[4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazin-1-yl]acetyl}morpholine; MS (ES): 640 [M+H]⁺;
- 2-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}decahydroisoquinoline; MS (ES): 566 [M+H]⁺;
- 15 • 2-{{[3,4-bis(methoxy)phenyl]-N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methylethanamine; MS (ES): 622 [M+H]⁺;
- ethyl 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine-4-carboxylate; MS (ES): 584 [M+H]⁺;
- ethyl 4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazine-1-carboxylate; MS (ES): 585 [M+H]⁺;
- 20 • N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-propylpropan-1-amine; MS (ES): 528 [M+H]⁺;
- 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-3-methylpiperidine; MS (ES): 526 [M+H]⁺;
- 25 • 4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2,6-dimethylmorpholine; MS (ES): 542 [M+H]⁺;
- 1,1-dimethylethyl 4-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazine-1-carboxylate; MS (ES): 613 [M+H]⁺;
- 1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(2-oxo-2-pyrrolidin-1-ylethyl)piperazine; MS (ES): 624 [M+H]⁺;
- 30 • N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-(methoxy)-N-[2-(methoxy)ethyl]ethanamine; MS (ES): 560 [M+H]⁺;

- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-(3,4-dichlorophenyl)piperazine; MS (ES): 657 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-phenylpiperazine; MS (ES): 589 [M+H]⁺;
- 5 • 3-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-1,3-thiazolidine; MS (ES): 516 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N,N-bis(pyridin-2-ylmethyl)methanamine; MS (ES): 626 [M+H]⁺;
- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N,N,N'-triethylethane-1,2-diamine; MS (ES): 571 [M+H]⁺;
- 10 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-ethylpiperazine; MS (ES): 541 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N,N-bis(phenylmethyl)methanamine; MS (ES): 624 [M+H]⁺;
- 15 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-pyrrolidin-1-ylpiperidine; MS (ES): 581 [M+H]⁺;
- 1-(1,3-benzodioxol-5-ylmethyl)-4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}piperazine; MS (ES): 647 [M+H]⁺;
- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N-methylhexan-1-amine; MS (ES): 542 [M+H]⁺;
- 20 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-3,5-dimethylpiperidine; MS (ES): 540 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-ethylpiperidine; MS (ES): 540 [M+H]⁺;
- 25 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2,5-dimethylpiperazine; MS (ES): 541 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-1,4,5,6-tetrahydropyrimidine; MS (ES): 511 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}azepane; MS (ES): 526 [M+H]⁺;
- 30 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-[5-(trifluoromethyl)pyridin-2-yl]piperazine; MS (ES): 658 [M+H]⁺;

- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-[3-(trifluoromethyl)phenyl]piperazine; MS (ES): 657 [M+H]⁺;
- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N-cyclohexylcyclohexanamine; MS (ES): 608 [M+H]⁺;
- 5 • methyl 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-L-prolinate; MS (ES): 556 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-1,4-diazepane; MS (ES): 527 [M+H]⁺;
- 1-(2-chlorophenyl)-3-({2-[4-(ethyloxy)phenyl]pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 618 [M+H]⁺;
- 10 • 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(4-fluorophenyl)methyl]-N-methylmethanamine; MS (ES): 566 [M+H]⁺;
- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N-methyl-2-morpholin-4-yl-1-phenylethanamine; MS (ES): 647 [M+H]⁺;
- 15 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-phenylazepane; MS (ES): 602 [M+H]⁺;
- 1-(2-chlorophenyl)-3-{{2-(2-methylphenyl)pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 588 [M+H]⁺;
- 1-(2-chlorophenyl)-3-({2-[4-(methyloxy)phenyl]pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 604 [M+H]⁺;
- 20 • 1-(2-chlorophenyl)-3-{{2-(4-methylphenyl)pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 588 [M+H]⁺;
- 1-(2-chlorophenyl)-3-({2-[4-(1,1-dimethylethyl)phenyl]pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 630 [M+H]⁺;
- 25 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-pyridin-2-ylazepane; MS (ES): 603 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(4-methylphenyl)azepane; MS (ES): 616 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(4-fluorophenyl)azepane; MS (ES): 620 [M+H]⁺;
- 30 • N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N-methyl-1-phenylethanamine; MS (ES): 562 [M+H]⁺;

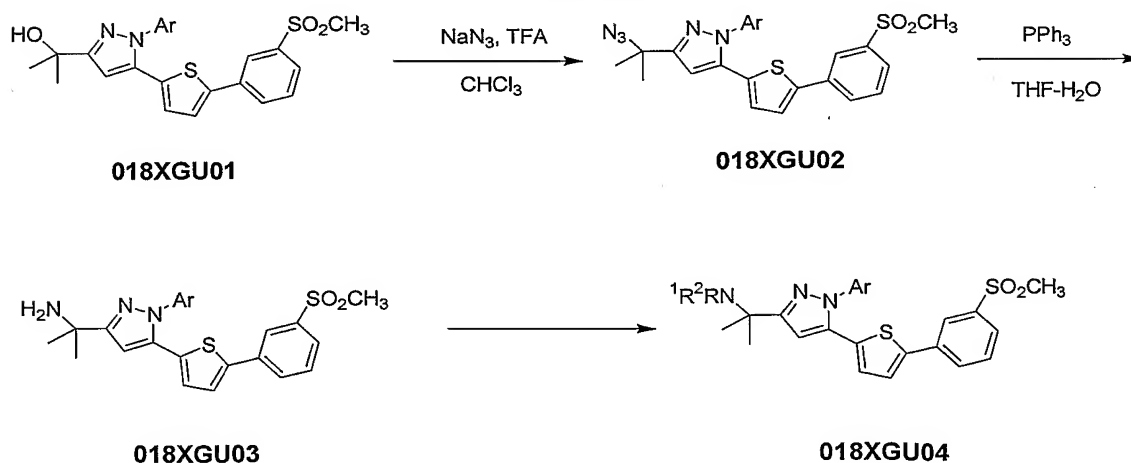
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(3,4-dichlorophenyl)azepane; MS (ES): 670 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-[4-(methyloxy)phenyl]azepane; MS (ES): 632 [M+H]⁺;
- 5 • 1-(2-chlorophenyl)-3-{{2-(3-chlorophenyl)pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 608 [M+H]⁺;
- 3-{{2-(4-bromophenyl)pyrrolidin-1-yl)methyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 652 [M+H]⁺;
- 1-(2-chlorophenyl)-3-{{2-[3-(methyloxy)phenyl]pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 604 [M+H]⁺;
- 10 • 1-(2-chlorophenyl)-3-{{2-[2-(methyloxy)phenyl]pyrrolidin-1-yl)methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 604 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-[3-(methyloxy)phenyl]azepane; MS (ES): 632 [M+H]⁺;
- 15 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(2-thienyl)azepane; MS (ES): 608 [M+H]⁺;
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(3-thienylmethyl)methanamine; MS (ES): 554 [M+H]⁺;
- 4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}amino)pyrimidine-2(1H)-thione; MS (ES): 554 [M+H]⁺;
- 20 • 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(3-methylisoxazol-5-yl)methyl]methanamine; MS (ES): 553 [M+H]⁺;
- N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-N-methyl-1-(2-thienyl)ethanamine; MS (ES): 568 [M+H]⁺;
- 25 • (1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}piperidin-3-yl)methanol; MS (ES): 542 [M+H]⁺;
- 4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-3-[4-(trifluoromethyl)phenyl]thiomorpholine; MS (ES): 674 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(3-methylphenyl)azepane; MS (ES): 616 [M+H]⁺;
- 30 • 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-dimethylmethanamine; MS (ES): 472 [M+H]⁺;

- 1-(1,1-dimethylethyl) 3-methyl 4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}piperazine-1,3-dicarboxylate; MS (ES): 671 [M+H]⁺;
- 2-(4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}piperazin-1-yl)-N,N-diethylethanamine; MS (ES): 612 [M+H]⁺;
- 5 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-4-(3-phenylpropyl)piperazine; MS (ES): 631 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(4-ethylphenyl)methyl]-N-methylmethanamine; MS (ES): 576 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(4-methyl-1H-imidazol-2-yl)methyl]methanamine; MS (ES): 552 [M+H]⁺;
- 10 • {{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}(methyl)amino]acetonitrile; MS (ES): 497 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}piperidine; MS (ES): 512 [M+H]⁺;
- 15 • N-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-methyl-N-(phenylmethyl)propan-2-amine; MS (ES): 590 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-(1H-imidazol-2-yl)methyl)-N-methylmethanamine; MS (ES): 538 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(5-methyl-1H-pyrazol-3-yl)methyl]methanamine; MS (ES): 552 [M+H]⁺;
- 20 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(4-methylphenyl)methyl]methanamine; MS (ES): 562 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}-2-(2-methylphenyl)azepane; MS (ES): 616 [M+H]⁺;
- 25 • 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-({2-[2-(trifluoromethyl)phenyl]pyrrolidin-1-yl)methyl)-1H-pyrazole; MS (ES): 642 [M+H]⁺;
- 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(quinolin-8-yl)methyl)methanamine; MS (ES): 599 [M+H]⁺;
- 4-(1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl}pyrrolidin-2-yl)-N,N-dimethylaniline; MS (ES): 617 [M+H]⁺;
- 30 • 1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(3,5-dimethyl-1H-pyrazol-4-yl)methyl]-N-methylmethanamine; MS (ES): 566 [M+H]⁺;

- 1-(1,3-benzothiazol-2-yl)-N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methylmethanamine; MS (ES): 605 [M+H]⁺;
- N-1-~{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-1~,N-2~,N-2~-trimethyl-1-phenylethane-1,2-diamine; MS (ES): 605 [M+H]⁺;
- 5 • 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(2-methyl-1,3-thiazol-4-yl)methyl]methanamine; MS (ES): 569 [M+H]⁺;
- 1-(1-benzothien-2-yl)-N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methylmethanamine; MS (ES): 604 [M+H]⁺;
- 2-(1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}pyrrolidin-2-yl)-1H-indole; MS (ES): 613 [M+H]⁺;
- 10 • 3-{[2-(2-bromophenyl)pyrrolidin-1-yl]methyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole; MS (ES): 652 [M+H]⁺;
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(quinolin-5-ylmethyl)methanamine; MS (ES): 599 [M+H]⁺;
- 15 • N-butyl-N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]butan-1-amine; MS (ES): 556 [M+H]⁺;
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-phenylpiperidine-4-carbonitrile; MS (ES): 613 [M+H]⁺;
- 2-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-6,7-bis(methyloxy)-1,2,3,4-tetrahydroisoquinoline; MS (ES): 620 [M+H]⁺;
- 20 • 4-(4-chlorophenyl)-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-1,2,3,6-tetrahydropyridine; MS (ES): 620 [M+H]⁺;
- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(5-phenylisoxazol-3-yl)methyl]methanamine; MS (ES): 615 [M+H]⁺;
- 25 • 4-bromo-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine; MS (ES): 590 [M+H]⁺;
- methyl N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methylglycinate; MS (ES): 530 [M+H]⁺;
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidin-3-ol; MS (ES): 528 [M+H]⁺;
- 30 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methyl-2-phenylpropan-2-amine; MS (ES): 576 [M+H]⁺;

- 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-3-(4-fluorophenyl)thiomorpholine; MS (ES): 624 [M+H]⁺;
- N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methylpropan-2-amine; MS (ES): 500 [M+H]⁺;
- 5 • N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N,N',N'-trimethylpropane-1,3-diamine; MS (ES): 543 [M+H]⁺;
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(1-methylpropyl)piperazine; MS (ES): 569 [M+H]⁺;
- (2R,6S)-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2,6-dimethylpiperidine; MS (ES): 540 [M+H]⁺;
- 10 • N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(cyclopropylmethyl)propan-1-amine; MS (ES): 540 [M+H]⁺;
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}decahydroquinoline; MS (ES): 566 [M+H]⁺;
- 15 • N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-ethylethanamine; MS (ES): 500 [M+H]⁺;
- 1,1-dimethylethyl 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-1,4-diazepane-1-carboxylate; MS (ES): 627 [M+H]⁺;
- N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methyl-2,2-bis(methyloxy)ethanamine; MS (ES): 546 [M+H]⁺;
- 20 • 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidin-4-ol; MS (ES): 528 [M+H]⁺;
- [(2S)-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}pyrrolidin-2-yl]methanol; MS (ES): 528 [M+H]⁺;
- 25 • 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-methyl-1,4-diazepane; MS (ES): 541 [M+H]⁺;
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-methylpiperazine; MS (ES): 527 [M+H]⁺;
- N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-ethylcyclohexanamine; MS (ES): 554 [M+H]⁺;
- 30 • N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N',N'-diethyl-N-methylethane-1,2-diamine; MS (ES): 557 [M+H]⁺;

- 1-butyl-4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]piperazine; MS (ES): 569 [M+H]⁺;
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N,1-dimethylpiperidin-4-amine; MS (ES): 555 [M+H]⁺;
- 5 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methylpropan-1-amine; MS (ES): 500 [M+H]⁺;
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-ethylpropan-2-amine; MS (ES): 514 [M+H]⁺;
- 1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-4-[2-(methoxy)ethyl]piperazine; MS (ES): 571 [M+H]⁺;
- 10 • N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(1-methylethyl)propan-2-amine; MS (ES): 528 [M+H]⁺;
- 1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-4-methylpiperidine; MS (ES): 526 [M+H]⁺;
- 15 • 4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]thiomorpholine; MS (ES): 530 [M+H]⁺;
- 2-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-1,2,3,4-tetrahydroisoquinoline; MS (ES): 560 [M+H]⁺;
- N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-(phenylmethyl)propan-2-amine; MS (ES): 576 [M+H]⁺;
- 20

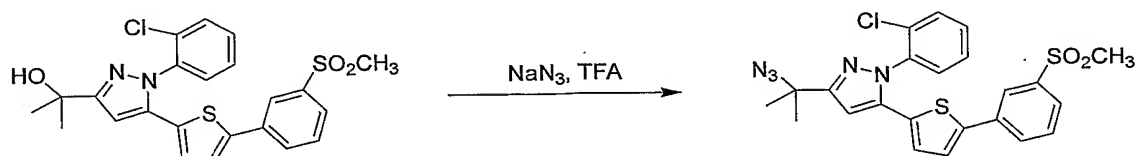
Scheme 18

As depicted in Scheme 18, Dimethylcarbinol can be transformed into the corresponding amines. Carbinol **018XGU01** reacted with sodium azide in the presence of TFA to give

018XGU02 in good yield. Azide **018XGU02** was reduced to the amine **018XGU03** by treatment with PPh_3 in $\text{THF-H}_2\text{O}$. Amine **018XGU03** was converted to **018XGU04** by alkylation with a halide or reductive-amination of aldehydes.

Example 34

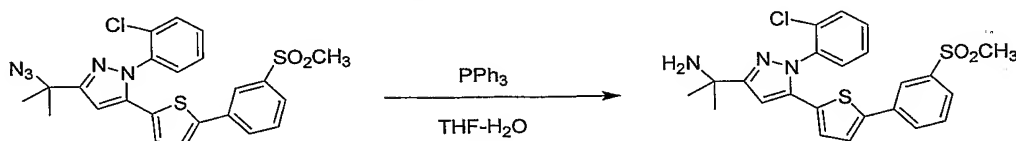
5 Preparation of 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[1-methyl-1-(2lambda~5~triaz-1-en-2-yn-1-yl)ethyl]-1H-pyrazole



NaN_3 (200mg, 3mmol) was added to a stirred solution of 2-{1-(2-chlorophenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazol-3-yl}-propan-2-ol (474mg, 1mmol) in CHCl_3 (9mL) at rt. And the mixture was cooled to 0°C . To this slurry was added dropwise TFA (0.6mL, 7.8mmol) over 5min. The reaction was allowed to warm to rt overnight. The mixture was partitioned between aqueous NH_4OH (1N) and CHCl_3 . The organic layer was washed with water and brine, then dried over Na_2SO_4 , and evaporated *in vacuo*. The residue was purified by flash chromatography (0-40% EtOAc/hexanes) to give the title compound as a white solid (380mg, 76%). ^1H NMR (CDCl_3): δ 8.04 (m, 1H), 7.84-7.81 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.42 (m, 5H), 7.21 (d, 1H), 6.75 (d, 1H), 6.66 (s, 1H), 3.07 (s, 3H), 1.73 (s, 6H). MS(ES): 498 $[\text{M}+\text{H}]^+$.

Example 35

20 Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-amine

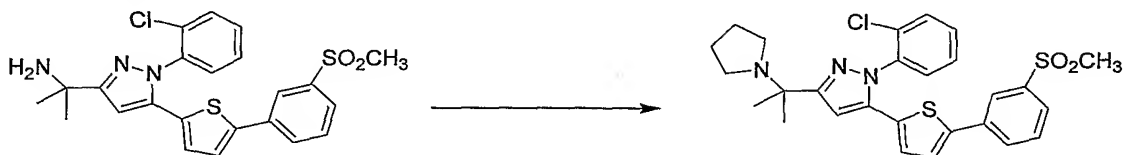


PPh_3 (3.3g, 12.58mmol) was added at rt to a solution of the 3-(2-azidopropan-2-yl)-1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazole (3.08g, 6.185mmol) in a mixture of $\text{THF-H}_2\text{O}$ (6:1, 70mL), and the resulting mixture was stirred at rt under N_2 for 8d. The solvent was removed *in vacuo*, and the residue was partitioned between water and EtOAc. The two phases were separated, and the aqueous phase was extracted with EtOAc. The combined extracts were washed with brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-60% 20%MeOH/DCM) to give the title compound as a light-yellow solid (2.43g, 89%). ^1H NMR (CDCl_3): δ 8.04 (m, 1H), 7.83-7.80 (m, 1H), 7.73-7.71 (m, 1H), 7.56-7.41 (m,

5H), 7.19 (d, 1H), 6.72 (d, 1H), 6.63 (s, 1H), 3.07 (s, 3H), 2.43 (brs, 2H), 1.61 (s, 6H). MS(ES) 455 (M-NH₂).

Example 36

Preparation of 1-(2-chlorophenyl)-3-(1-methyl-1-pyrrolidin-1-ylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole



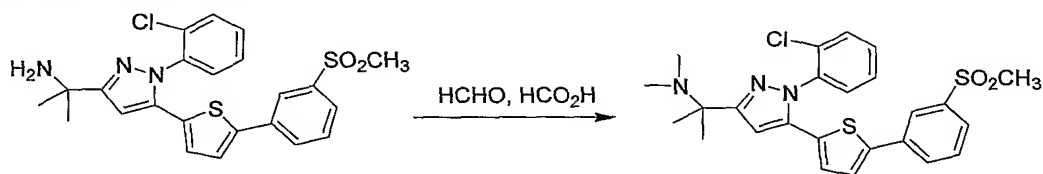
A mixture of the 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-amine (142mg, 0.3mmol), K₂CO₃ (83mg, 0.6mmol), 1,4-dibromobutane (0.1mL, 0.7mmol) and anhydrous EtOH was stirred at 100°C in a sealed vial for 18h. The solvent was removed *in vacuo*, and the residue was purified by flash chromatography (0-40% 20% MeOH/DCM) to give the title compound as a pale-yellow solid. ¹HNMR (CDCl₃): δ 8.03 (m, 1H), 7.86-7.83 (m, 1H), 7.74-7.71 (m, 1H), 7.61-7.47 (m, 5H), 7.23 (d, 1H), 6.93 (s, 1H), 6.83 (d, 1H), 3.68 (m, 2H), 3.08 (s, 3H), 2.17 (m, 2H), 2.04 (s, 6H), 1.83 (m, 2H). MS(ES): 526 [M+H]⁺.

The following compound is prepared essentially according to the previous examples:

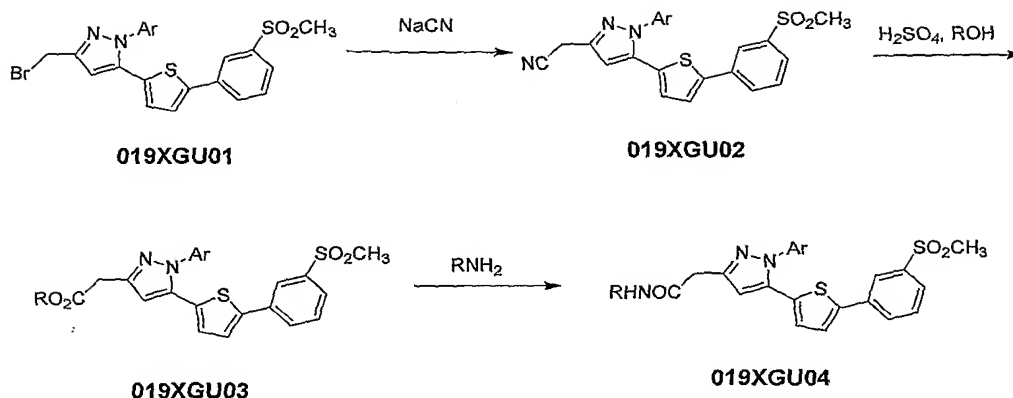
4-{1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1-methylethyl}morpholine, MS(ES): 542 [M+H]⁺

Example 37

Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-dimethylpropan-2-amine



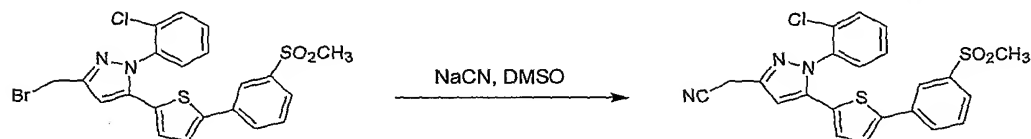
37% HCHO (80mg, 0.986mmol) was added to a solution of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-amine (182mg, 0.3872mmol) in formic acid (2mL), and the mixture was stirred at 95°C in a sealed vial overnight. The reaction mixture was basified with aqueous NaOH (2N), and then extracted with DCM. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The residue was purified by flash chromatography (0-70% 20%MeOH/DCM) to give the title compound as a pale-yellow solid (62mg, 32%). ¹HNMR (CDCl₃): δ 8.03 (m, 1H), 7.82 (m, 1H), 7.71 (m, 1H), 7.57-7.42 (m, 5H), 7.20 (d, 1H), 6.76 (m, 2H), 3.07 (s, 3H), 2.33 (brs, 6H), 1.57 (brs, 6H).

Scheme 19

As depicted in Scheme 19, pyrazole-methyl bromide can be converted to the corresponding pyrazole-amides. Bromide **019XGU01** was converted to the cyanide **019XGU02** by reacting with sodium cyanide. The cyanide was hydrolyzed to afford ester **019XGU03**, which was converted to the corresponding amides by treatment with the amine in the presence of the corresponding ammonium chloride.

Example 38

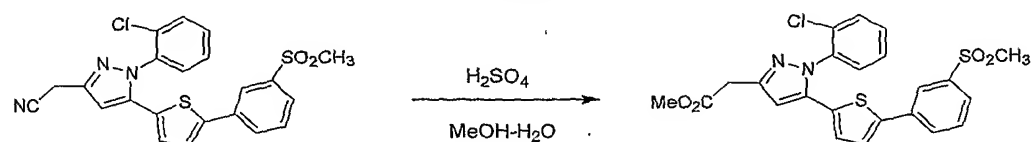
Preparation of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]acetonitrile



A mixture of the 3-bromomethyl-1-(2-chlorophenyl)-5-[5-[3-(methylsulfonyl)phenyl]-thiophen-2-yl]-1H-pyrazole (720mg, 1.42mmol), NaCN (250mg, 5.1mmol), and DMSO (10mL) was stirred in a sealed vial at 100°C for 5h, diluted with water, and extracted with EtOAc. The combined extracts were washed with water, brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-80% EtOAc/hexanes) to give the title compound as a white solid (350mg, 54%). ¹HNMR (CDCl₃): δ 8.03 (d, 1H), 7.84 (m, 1H), 7.72 (m, 1H), 7.58-7.44 (m, 5H), 7.22 (d, 1H), 6.79 (d, 1H), 6.73 (s, 1H), 3.87 (s, 2H), 3.09 (s, 3H). MS(ES): 454 [M+H]⁺.

Example 39

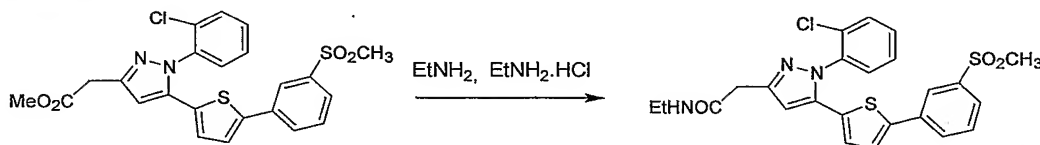
Preparation of Methyl [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]acetate



Concentrated H₂SO₄ (4mL) was added dropwise at 0°C to a stirred solution of the [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]acetonitrile (148mg, 0.33mmol) in a mixture of MeOH-H₂O (10:1, 11mL), and the resulting mixture was stirred at 90°C overnight. The mixture was diluted with cold water, then basified with Na₂CO₃ solid, extracted with EtOAc. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-40% 20%MeOH/DCM) to afford the title compound as a white solid (131mg, 82%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.83-7.81 (m, 1H), 7.73-7.71 (m, 1H), 7.57-7.41 (m, 5H), 7.20 (d, 1H), 6.75 (d, 1H), 6.69 (s, 1H), 3.82 (s, 2H), 3.79 (s, 3H), 3.08 (s, 3H). MS(ES): 487 [M+H]⁺.

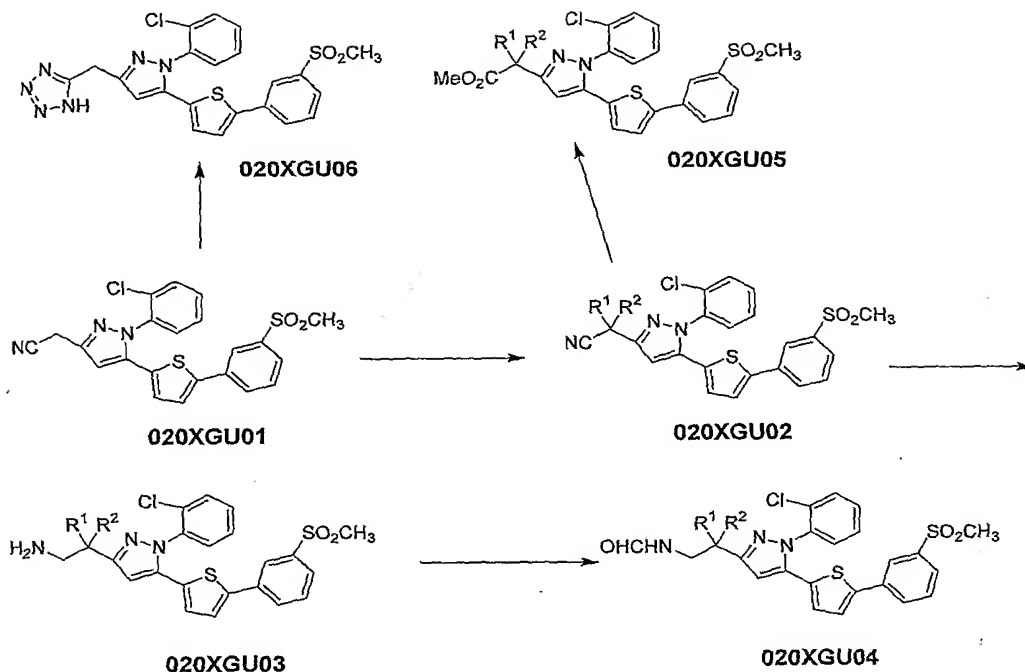
Example 40

Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-ethylacetamide



A mixture of the methyl [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl] acetate (100mg, 0.2mmol), EtNH₂ (2.0M in THF, 5mL) and ethylamine hydrochloride (200mg) was stirred at 70°C in a sealed vial for 8h. The solvent was removed *in vacuo*, another EtNH₂/THF (2.0M, 5mL) was added, the mixture was stirred at 78°C for another 24h. Another 3mL of EtNH₂/THF was added, and the mixture was stirred at 78°C for another 20h. The solvent was removed *in vacuo*, and the crude product was purified by flash chromatography (0-30% 20%MeOH/DCM) to give the title compound as a white solid (85mg, 83%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.84-7.82 (m, 1H), 7.74-7.71 (m, 1H), 7.60-7.46 (m, 5H), 7.21 (d, 1H), 6.78 (d, 1H), 6.61 (s, 1H), 6.45 (brs, 1H), 3.69 (s, 2H), 3.30 (q, 2H), 3.07 (s, 3H), 1.14 (t, 3H). MS(ES): 500 [M+H]⁺.

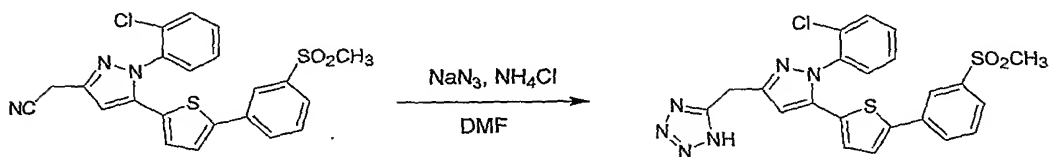
Scheme 20



As depicted in Scheme 20, nitriles can be transformed into tetrazoles, esters and amides. The cyanide **020XGU01** was alkylated to give **020XGU02**, which was reduced with DIBAL-H to give the primary **020XGU03**. **020XGU04** was obtained by formylation of the primary amine **020XGU03** with HCO_2Et . Treatment of the cyanide **020XGU01** with NaN_3 and NH_4Cl gave the tetrazole **020XGU06**. **020XGU02** was hydrolyzed to give the ester **020XGU05**.

Example 41

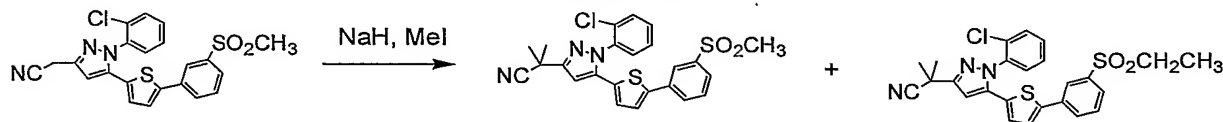
Preparation of 5- $\{[1-(2\text{-chlorophenyl})-5-\{5-[3-(\text{methylsulfonyl})\text{phenyl}]-2\text{-thienyl}\}-1\text{H-pyrazol-3-yl]methyl}\}-1\text{H-tetrazole}$



A mixture of $[1-(2\text{-chlorophenyl})-5-\{5-[3-(\text{methylsulfonyl})\text{phenyl}]-2\text{-thienyl}\}-1\text{H-pyrazol-3-yl}]$ acetonitrile (136mg, 0.3mmol), NaN_3 (59mg, 0.9mmol), NH_4Cl (49mg, 0.9mmol), and anhydrous DMF (5mL) was stirred in a sealed vial at 120°C for 24h. The mixture was poured into water, and extracted with DCM. The combined extracts were washed with water and brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-80% 20% MeOH/DCM) to give the title compound as a white solid (116mg, 78%). $^1\text{H-NMR}$ (CDCl_3): δ 8.04 (m, 1H), 7.85-7.83 (m, 1H), 7.74-7.71 (m, 1H), 7.62-7.46 (m, 5H), 7.22 (d, 1H), 6.8 (d, 1H), 6.66 (s, 1H), 4.52 (s, 2H), 3.08 (s, 3H). MS(ES): 497 $[\text{M}+\text{H}]^+$.

Example 42

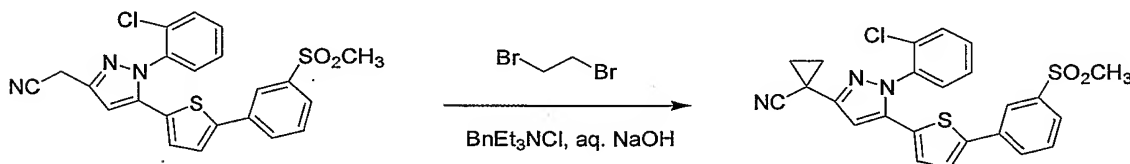
Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methyl propanenitrile and 2-[1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanenitrile



NaH (60% in mineral oil, 120mg, 3mmol) was added at 0°C to a stirred solution of the [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]acetonitrile (453mg, 1mmol) and MeI (160μL, 2.56mmol) in anhydrous DMF (15mL) under N₂. The reaction mixture was allowed to warm to rt and stirred at rt for 4h. The reaction mixture was quenched with aqueous NH₄Cl solution, and extracted with EtOAc. The combined extracts were washed with water and brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified first by flash chromatography (0-70% EtOAc/hexanes), again by preparative HPLC (normal phase) to give the two title compounds as white solid. (236mg, 49%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.84-7.82 (m, 1H), 7.74-7.71 (m, 1H), 7.58-7.43 (m, 5H), 7.21 (d, 1H), 6.77 (d, 1H), 6.72 (s, 1H), 3.07 (s, 3H), 1.83 (s, 6H). MS(ES): 482 [M+H]⁺. (227mg, 46%). ¹HNMR (CDCl₃): δ 8.00 (m, 1H), 7.80-7.78 (m, 1H), 7.73-7.71 (m, 1H), 7.57-7.45 (m, 5H), 7.21 (d, 1H), 6.76 (d, 1H), 6.71 (s, 1H), 3.13 (q, 2H), 1.83 (s, 6H), 1.30 (t, 3H). MS(ES): 496 [M+H]⁺.

Example 43

Preparation of 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopropanecarbonitrile



1,2-dibromoethane (40 μL 0.46 mmol) was added to a stirred suspension of the [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]acetonitrile (68mg, 0.15mmol), benzyltriethylammonium chloride (20mg, 0.088mmol), and 50% aqueous NaOH (2mL) at 0°C, the resulting mixture was stirred at rt overnight. After diluted with water, the mixture was extracted with ether. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-70% EtOAc/hexanes) to give the title compound as a white solid (59mg, 82%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.84-7.82 (m, 1H),

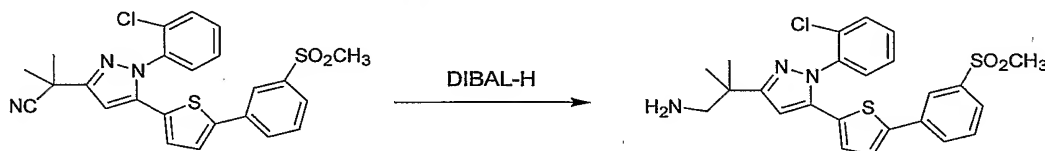
7.74-7.71 (m, 1H), 7.58-7.43 (m, 5H), 7.21 (d, 1H), 6.79-6.77 (m, 2H), 3.07 9s, 3H), 1.73-1.68 (m, 4H). MS(ES): 480 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopentanecarbonitrile MS(ES): 508 [M+H]⁺

Example 44

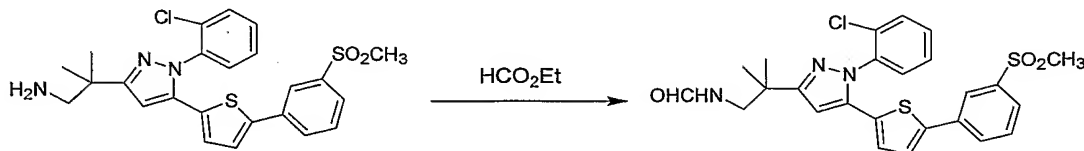
Preparation of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropan-1-amine



DIBAL-H (1.0M in hexanes, 1.5mL, 1.5mmol) was added dropwise at -78°C to a stirred solution of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanenitrile (210mg, 0.436mmol) in dry DCM (10mL) under N₂, the resulting mixture was stirred at -78°C for 3h. At -78°C 10% aqueous Rochelle's salt solution was added dropwise to quench the reaction, the mixture was allowed to warm to rt, and extracted with DCM. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-60% 20% MeOH/DCM) to give the title compound as a white solid (160mg, 76%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.83-7.80 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.42 (m, 5H), 7.20 (d, 1H), 6.71 (d, 1H), 6.52 (s, 1H), 3.07 (s, 3H), 2.90 (s, 2H), 2.17 (brs, 2H), 1.39 (s, 6H). MS(ES): 486 [M+H]⁺.

Example 45

Preparation of N-{2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropyl}formamide



A mixture of 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropan-1-amine (82mg, 0.1687mmol) and HCO₂Et (1.5mL) was stirred at 75°C in a sealed vial overnight. The solvent was removed *in vacuo*, and the residue was purified by flash chromatography (0-40% 20% MeOH/DCM) to give the title compound as a white solid (72mg, 83%). ¹HNMR (CDCl₃): δ 8.21 (s, 1H), 8.04 (m, 1H), 7.84-7.80 (m, 1H), 7.74-7.71 (m, 1H), 7.57-7.42 (m,

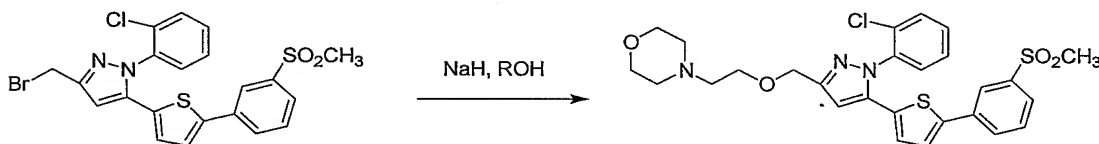
5H), 7.21 (d, 1H), 6.73 (d, 1H), 6.53 (s, 1H), 6.50 (brs, 1H), 3.56 (d, 2H), 3.07 (s, 3H), 1.40 (s, 6H). MS(ES): 514 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- N-{1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1-methylethyl}formamide, MS(ES): 500 [M+H]⁺

Example 46

Preparation of 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}morpholine

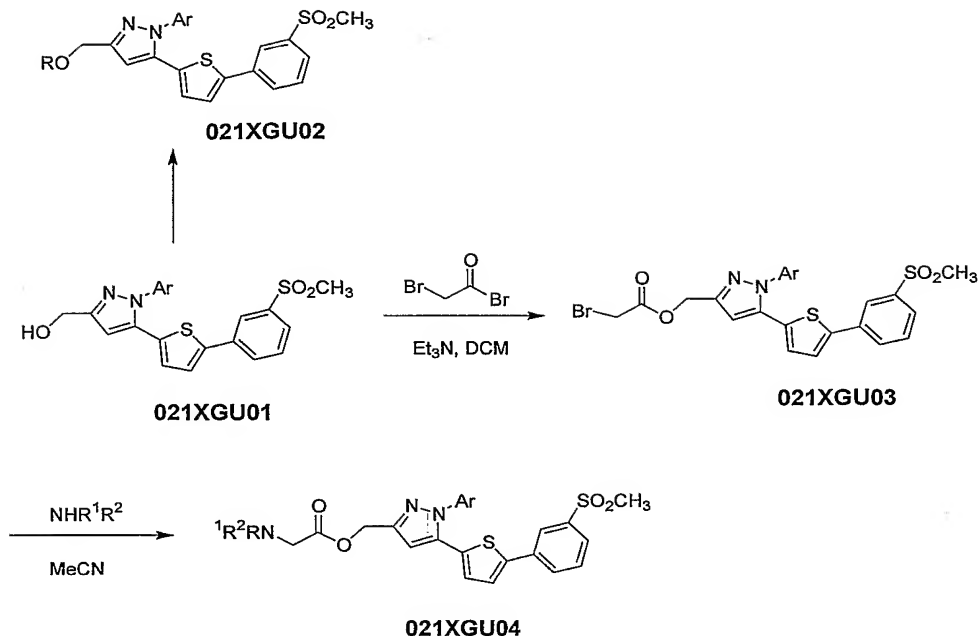


NaH (60% in mineral oil, 40mg, 1mmol) was added to a stirred mixture of the bromide (102mg, 0.2mmol), 4-(2-hydroxyethyl)morpholine (40μL, 0.3mmol) and anhydrous DMF (10mL) at 0°C under N₂. The mixture was stirred at rt overnight, and the solvent was removed *in vacuo*. The residue was dissolved in EtOAc, washed with water and brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified first by flash chromatography (0-15% MeOH/DCM), again by reverse phase preparative HPLC to give the title compound as a white solid (58mg, 52%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.83-7.81 (m, 1H), 7.74-7.72 (m, 1H), 7.57-7.44 (m, 5H), 7.21 (d, 1H), 6.75 (d, 1H), 6.71 (s, 1H), 4.66 (s, 2H), 3.75-3.70 (m, 6H), 3.08 (s, 3H), 2.66 (m, 2H), 2.52 (m, 4H). MS(ES): 558 [M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-morpholin-4-ylethanamine, MS(ES): 557 [M+H]⁺

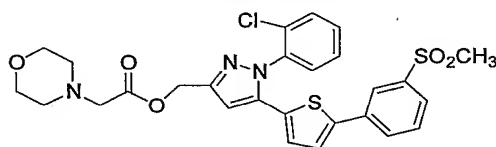
Scheme 21



As depicted in Scheme 21, alcohol **021XGU01** can be transformed into the corresponding ethers and esters containing amino groups. Alcohol **021XGU01** was converted to **021XGU02** by alkylation with alkyl halides. Ester **021XGU03** was obtained by acylation of **021XGU01** with bromoacetyl bromide. Replacement of the bromide with amines afforded **021XGU04**.

Example 47

Preparation of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl morpholin-4-ylacetate



iPr₂NEt (0.8mL, 4.6mmol) was added at 0°C to a stirred solution of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methanol (450mg, 1mmol) in dry DCM (10mL) under N₂ followed by bromoacetyl bromide (0.2mL, 2.3mmol), the resulting dark mixture was stirred at rt overnight under N₂. The mixture was diluted with DCM, washed with water, dried over Na₂SO₄, and evaporated *in vacuo*. The residue was purified by flash chromatography (0-80% EtOAc/hexanes) to give the ester as a pale-yellow solid (465mg, 82%). A mixture of the ester (114mg, 0.2mmol), K₂CO₃ (90mg, 0.6mmol), morpholine (0.1mL), and anhydrous MeCN (5mL) was stirred in a sealed vial at 60°C overnight. The solvent was removed *in vacuo*, and the residue was purified by flash chromatography (0-100% EtOAc/hexanes) to give the title compound as a white solid (82mg, 72%). ¹HNMR (CDCl₃): δ 8.04 (m, 1H), 7.83-7.81 (m, 1H), 7.74-7.71 (m, 1H), 7.58-7.44 (m, 5H), 7.21 (d,

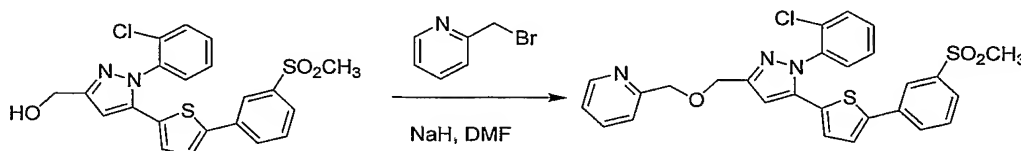
1H), 6.76 (d, 1H), 6.71 (s, 1H), 5.27 (s, 2H), 3.77 (t, 4H), 3.32 (d, 2H), 3.08 (s, 3H), 2.63 (t, 4H). MS(ES): 572 [M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl (4-methylpiperazin-1-yl)acetate, MS(ES): 585 [M+H]⁺

Example 48

Preparation of 2-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]oxy)methyl]pyridine



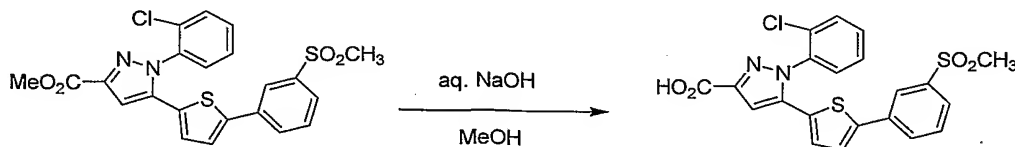
NaH (60% in mineral oil, 90mg, 2.25mmol) was added at 0°C to a stirred mixture of [1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methanol (222mg, 0.5mmol), 2-(bromomethyl)pyridine hydrobromide (190mg, 0.75mmol), and anhydrous DMF (5mL) under N₂, the resulting mixture was stirred at rt for 4h. The reaction mixture was poured into ice-water, and extracted with EtOAc. The combined extracts were washed with brine, dried over Na₂SO₄, and evaporated *in vacuo*. The crude product was purified by flash chromatography (0-100% EtOAc/hexanes) to give the title compound as a colorless semi-solid (179mg, 67%). ¹HNMR (CDCl₃): δ 8.58 (m, 1H), 8.04 (m, 1H), 7.82 (m, 1H), 7.74-7.71 (m, 2H), 7.57-7.44 (m, 6H), 7.20 (m, 2H), 6.76 (m, 2H), 4.78 (m, 4H), 3.08 (s, 3H). MS(ES): 536 [M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[(5-(trifluoromethyl) furan-2-yl)methyl]oxy)methyl]-1H-pyrazole, MS(ES): 593 [M+H]⁺.

Example 50

Preparation of 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid



Aqueous NaOH solution (2N, 80mL) was added to a suspension of 1-(2-chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid methyl ester (5g, 10.57mmol) in MeOH (80mL), and the resulting mixture was stirred at reflux for 10h. The volatiles was removed *in vacuo*, the residual solution was acidified with aqueous HCl (6N) to pH 2, extracted

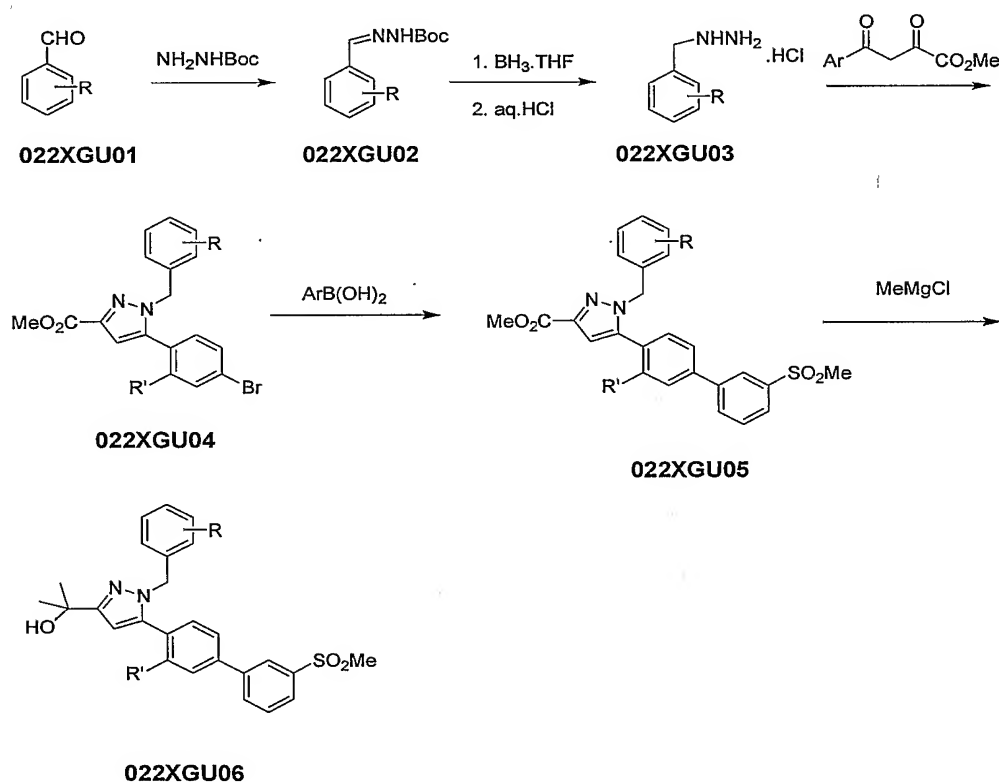
with EtOAc. The combined extracts were washed with water and brine, dried over Na_2SO_4 , and evaporated *in vacuo*. The crude product was recrystallized from DCM/hexane to give the title compound as a white solid (4.1g, 86%). $^1\text{H-NMR}$ (DMSO-d_6): δ 12.73 (s, 1H), 7.98 (m, 1H), 7.83 (m, 2H), 7.77 (m, 2H), 7.71 (m, 1H), 7.67 (d, 1H), 7.62 (m, 2H), 7.34 (s, 1H), 7.19 (s, 1H), 3.26 (s, 3H).

MS(ES): 459 $[\text{M}+\text{H}]^+$.

The following compounds are prepared essentially according to the previous examples:

- 2-[1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanoic acid, MS(ES): 501 $[\text{M}+\text{H}]^+$

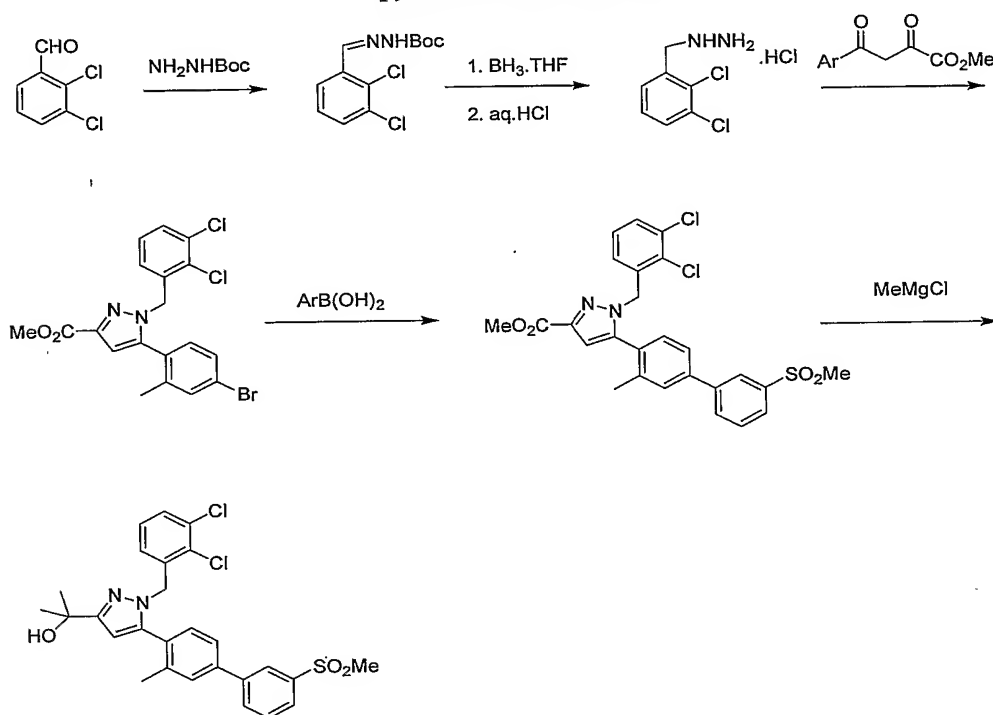
Scheme 21A



As depicted in Scheme 21A, a-ring benzyl pyrazoles was synthesized. Aldehyde **022XGU01** reacted with tert-butyl carbazate to give **022XGU02**, which was reduced with diborane to give benzylhydrazine **022XGU03**. Treatment of the benzylhydrazine with a diketone ester gave pyrazole **022XGU04** in high yield. Suzuki coupling of **022XGU04** with a boronic acid afforded **022XGU05**, which was converted to the carbinol **022XGU06** by treatment with methylmagnesium chloride.

Example 51

Preparation of 2-{1-[(2,3-dichlorophenyl)methyl]-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol

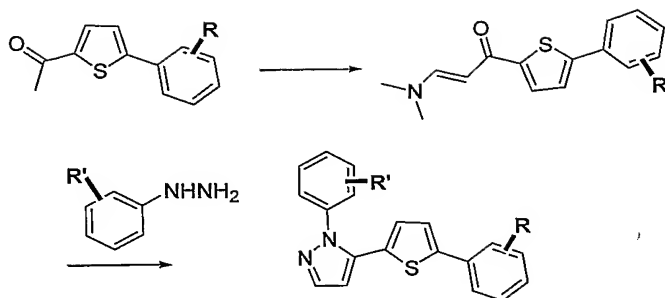


2-{1-[(2,3-dichlorophenyl)methyl]-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol was prepared in a manner similar to that as described in Example 8 using the appropriate benzylhydrazine hydrochloride prepared by the reported procedure (Ghali, N.I. et al *J. Org. Chem.* 1981, 46, 5413-5414.) ^1H NMR (CDCl_3): δ 8.16 (m, 1H), 7.93 (m, 1H), 7.87 (m, 1H), 7.66 (t, 1H), 7.51 (m, 1H), 7.41-7.34 (m, 2H), 7.17-7.10 (m, 2H), 6.57 (m, 1H), 6.28 (s, 1H), 5.25 (s, 2H), 3.10 (s, 3H), 2.68 (s, 1H), 2.23 (s, 3H), 1.66 (s, 6H). MS(ES): 529 $[\text{M}+\text{H}]^+$, 511 (M-OH)

The following compounds are prepared essentially according to the previous examples:

- 2-{1-[(2,3-dichlorophenyl)methyl]-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 515 $[\text{M}+\text{H}]^+$, 497 (M-OH)
- 2-{5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-[(2,3-dichlorophenyl)methyl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 549 $[\text{M}+\text{H}]^+$, 531 (M-OH)
- 2-{1-[(4-chlorophenyl)methyl]-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 495 $[\text{M}+\text{H}]^+$,
- 5-(5-{1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)-3-methyl-2-(methylsulfonyl)pyridine; 514.2 $[\text{M}+\text{H}]^+$

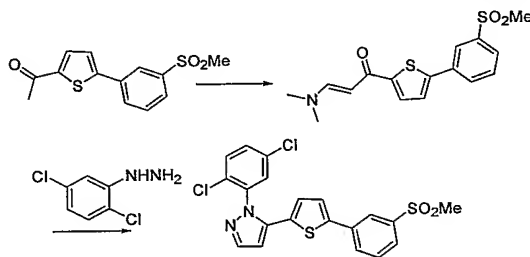
Scheme 21B



As depicted in Scheme 21B, pyrazoles can be prepared *via* an enamine intermediate. Most aryl-methyl-ketones will react with a reagent such as Bredereck's reagent or *N,N*-dimethylformamide diethyl acetal to form an enamine. Under mild conditions, such enamines react with arylhydrazines to regioselectively afford a single pyrazole isomer.

Example 52

Preparation of 1-(2,5-Dichloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole

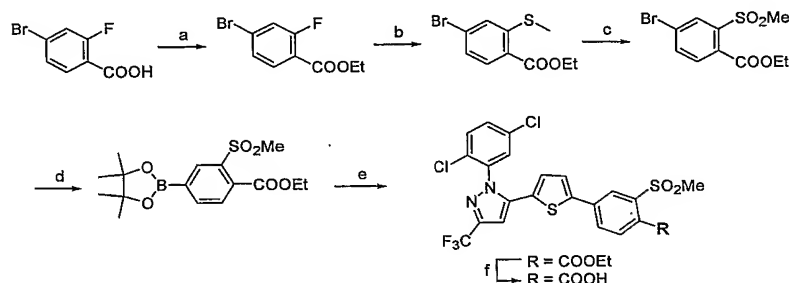


Into a 100 mL flask was weighed 1.34 g of 1-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-ethanone, 13 mL of DMF, and 988 μ L (1.2 eq) of *N,N*-dimethylformamide diethyl acetal. The reaction was heated at $\sim 80^\circ\text{C}$ for 18 h then was washed into a separatory funnel with ethyl acetate and water. The resulting precipitate was collected by filtration and was dried under high vacuum affording the enamine product as a yellow powder, yield: 1.27 g (79%). ^1H NMR (400MHz, $\text{DMSO}-d_6$): δ 8.30(s, 1H), 8.17(d, $J=8$ Hz, 1H), 7.99(d, $J=8$ Hz, 1H), 7.94(d, $J=4$ Hz, 1H), 7.75-7.85(m, 3H), 5.93(d, $J=12$ Hz, 1H), 3.43(s, 3H), 3.41(s, 3H), 3.04(s, 3H).

Into a 50 mL flask was weighed 105.7 mg of enamine, 97.0 mg of 2,5-dichlorophenylhydrazine hydrochloride, 1 mL of DMF and 1 mL of acetic acid. The resulting solution was heated at $95-100^\circ\text{C}$ for 20 h then was washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was separated, washed with brine, was dried (MgSO_4), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Jones Flashmaster, 20 g SiO_2 , gradient from 20% ethyl acetate to 50% ethyl acetate-hexanes over 30 minutes). Appropriate fractions were combined and concentrated *in vacuo* affording the product as a colorless powder, yield: 115 mg (81%). ^1H -NMR (400MHz, CDCl_3): δ 8.07 (1H, m), 7.84 (1H, m), 7.78 (1H, d), 7.75 (1H, m), 7.60-7.53 (2H, m), 7.49-7.46 (2H, m), 7.24 (1H, d), 6.79 (1H, d), 6.67 (1H, d), 3.08 (3H, s). MS (ES): 451 $[\text{M}+\text{H}]^+$.

Example 53

Preparation of 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)benzoic acid



- 5 a) EDCI, DMAP, EtOH, CH₂Cl₂, 45 °C; b) NaSMe, THF, 80 °C; c) MCPBA, CH₂Cl₂, 25 °C; d) Bis(pinacolato)diboron, Pd(dppf), KOAc, DMSO, 85 °C; e) (Ph₃P)₄Pd, **v** where R₁ = 2,5-Cl, Na₂CO₃, THF-water, 80 °C; f) LiOH, THF-MeOH-H₂O, 25 °C.

Into a 1 L flask was weighed 24.66 g (113 mmol) of acid, 26.5 g (138 mmol) of EDCI, 1.7 g of DMAP, 425 mL of dichloromethane, and 25 mL of ethanol. The resulting solution was heated at 40–45 °C for 24 h then was concentrated *in vacuo* to remove dichloromethane. The residue was washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄) and was concentrated *in vacuo*. The intermediate 4-Bromo-2-fluoro-benzoic acid ethyl ester was recovered as a colorless oil, yield: 24.99 g (89.8%).

The ester was treated with 12.2 g of sodium thiomethoxide and 200 mL of THF and the resulting suspension was heated at 80–85 °C for 5 h. The reaction was then concentrated to remove THF and was washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄), and concentrated *in vacuo* affording the intermediate 4-Bromo-2-methylsulfonyl-benzoic acid ethyl ester as a light gray solid, yield: 27.5 g (99%). ¹H NMR (400MHz, CDCl₃): δ 7.86(d, *J* = 8 Hz, 1H), 7.36(s, 1H), 7.28(d, *J* = 8 Hz, 1H), 4.38(q, *J* = 7 Hz, 2H), 2.45(s, 3H), 1.39(t, *J* = 7 Hz, 3H).

Into a 1 L flask was weighed 15.0 g of 4-Bromo-2-methylsulfonyl-benzoic acid ethyl ester (54.5 mmol), 200 mL of dichloromethane, and 28.0 g of MCPBA (77% max., Aldrich) was added portionwise at room temperature. The resulting suspension was stirred at room temperature for three days then was concentrated *in vacuo* to remove dichloromethane. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M NaOH. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄), and concentrated *in vacuo*. The intermediate 4-Bromo-2-methanesulfonyl-benzoic acid ethyl ester was recovered as a colorless oil which crystallized on standing, yield: 16.3 g (97%). ¹H NMR (400MHz, CDCl₃): δ 8.27(s, 1H), 7.82(d, *J* = 8 Hz, 1H), 7.60(d, *J* = 8 Hz, 1H), 4.44(q, *J* = 7 Hz, 2H), 3.38(s, 3H), 1.41(t, *J* = 7 Hz, 3H).

The 4-Bromo-2-methanesulfonyl-benzoic acid ethyl ester (16.3 g, 53 mmol) was weighed into a flask with 21 g of bis(pinacolato)diboron, 19 g of potassium acetate, 5 g of dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct, and 150 mL of DMSO. The resulting suspension was heated at 80-85 °C for 20 h then was diluted with 200 mL of water, 200 mL of ethyl acetate, and the reaction mixture was filtered through celite to remove solids. The filtrate was transferred to a separatory funnel and the aqueous phase was separated and washed with ethyl acetate. The ethyl acetate washings were combined, washed with brine, were dried (Na₂SO₄) and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 65 x 200 mm SiO₂, gradient elution from 100% hexanes to 40% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* affording the 2-Methanesulfonyl-4-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yl)-benzoic acid ethyl ester as a colorless solid, yield: 12.65 g (67%). ¹H-NMR (400MHz, CDCl₃): δ 8.52(s, 1H), 8.08(d, *J* = 8 Hz, 1H), 7.65(d, *J* = 8 Hz, 1H), 4.45(q, *J* = 7 Hz, 2H), 3.33(s, 3H), 1.42(t, *J* = 7 Hz, 3H), 1.35(s, 12H).

Into a 100 mL flask was weighed 865 mg (1.96 mmol) of bromide **v** (where R¹ = 2,5-Cl), 693.5 mg (1.96 mmol) of boronate, and 20 mL of THF. The resulting solution was heated at 80-85 °C and ~250 mg of tetrakis(triphenyl)phosphine palladium (0) was added followed by 2.0 mL of 1.0 M Na₂CO₃. The reaction was maintained at 80-85 °C for 3 h then was concentrated to remove THF. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄), and concentrated *in vacuo*. Crude product was purified by silica gel flash chromatography (Jones Flashmaster, 50 g SiO₂, gradient elution from 100% hexanes to 40% ethyl acetate over 30 minutes). Appropriate fractions were combined and concentrated *in vacuo* affording the intermediate ethyl 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2(methylsulfonyl)benzoate as a colorless powder, yield: 256.4 mg (22.2%); MS (ES): 589 and 591 [each M+H]⁺.

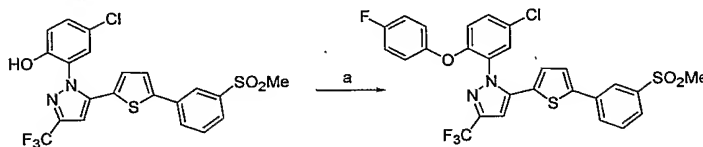
Into a 50 mL flask was weighed 120.2 mg of ester, 1 mL of THF, and 1 mL of methanol. To the solution was added 204 μL of a 3.0 M LiOH solution. The reaction was stirred at room temperature for 3 h then was washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄), and concentrated *in vacuo*. The crude acid was purified by reverse-phase HPLC to afford 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2(methylsulfonyl)benzoic acid as a colorless powder, yield 43.0 mg (38%); ¹H-NMR (400MHz, DMSO-*d*₆): δ 8.20(s, 1H), 8.09(s, 1H), 7.98(d, *J* = 8 Hz, 1H), 7.86(m, 2H), 7.81(d, *J* = 8 Hz, 1H), 7.74(d, *J* = 4 Hz, 1H), 7.58(s, 1H), 7.32(d, *J* = 4 Hz, 1H), 3.46(s, 3H); MS (ES): 561 and 563 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 3-{5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-thiophene-2-carboxylic acid. $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.05 (1H, m), 7.88-7.81 (1H, m), 7.77-7.69 (2H, m), 7.57 (1H, m), 7.26-7.22 (2H, m), 6.89 (1H, d), 6.86 (1H, s), 3.08 (3H, s). MS (ES): 499 $[\text{M}+\text{H}]^+$.
- 2-(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid. $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 7.59 (1H, d), 7.53 (1H, m), 7.51-7.43 (2H, m), 7.42-7.32 (3H, m), 7.14 (1H, d), 6.87 (1H, s), 6.80 (1H, d), 1.62 (6H, s). MS (ES): 525 $[\text{M}+\text{H}]^+$.
- Ethyl 3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methanesulfonyl)benzoate; MS (ES): 589 and 591 [each $\text{M}+\text{H}]^+$.

Example 54

Preparation of 1-[5-Chloro-2-(4-fluorophenoxy)-phenyl]-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole

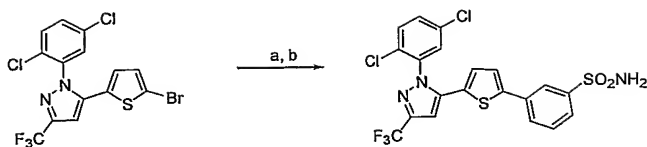


a) 4-F-phenylboronic acid, $\text{Cu}(\text{OAc})_2$, $i(\text{Pr})_2\text{EtN}$, CH_2Cl_2 , 25 °C.

4-Chloro-2-{5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenol was prepared as described in Example 1. Into a 50 mL flask was weighed 194 mg (388 μmol) of phenol, 159 mg of copper (II) acetate, 113.8 mg of 4-fluoroboronic acid, ~50 mg of activated 4 angstrom molecular sieves, 4 mL of dichloromethane, and 500 μL of diisopropylethylamine. The resulting suspension was stirred at room temperature for 21 h then was poured into a separatory funnel with ethyl acetate and 1 M NaOH. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Jones Flashmaster, 50 g SiO_2 , gradient elution from 100% hexanes to 40% ethyl acetate). Appropriate fractions were combined and concentrated *in vacuo* affording the product as a colorless solid, yield: 89 mg (39%). $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.09(s, 1H), 7.88(d, $J=8$ Hz, 1H), 7.76(d, $J=8$ Hz, 1H), 7.66(d, $J=4$ Hz, 1H), 7.61(t, $J=8$ Hz, 1H), 7.40(d, $J=8$ Hz, 1H), 7.30(d, $J=4$ Hz, 1H), 6.90(m, 2H), 6.79(d, $J=9$ Hz, 2H), 6.64(m, 2H), 3.10(s, 3H); MS (ES): 593 $[\text{M}+\text{H}]^+$.

Example 55

Preparation of 3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide.



a) Bis(pinacolato)diboron, Pd(dppf), KOAc, DMSO, 85 °C; b) (Ph₃P)₄Pd, 3-Br-Benzenesulfonamide, Na₂CO₃, THF-water, 80 °C.

Into a 100 mL flask was weighed 4.43 g (10.0 mmol) of bromide, 3.14 g of
 5 bis(pinacolato)diboron, 3.12 g of potassium acetate, 29 mL of DMSO and 516 mg of dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct. The resulting suspension was heated at 100 °C for 18 h then was washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was separated, washed with water, brine, was dried (MgSO₄), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Jones Flashmaster, two 70 g columns,
 10 gradient elution from 100% hexanes to 20% ethyl acetate over 40 minutes). Appropriate fractions were combined and concentrated *in vacuo* to afford the product as an off-white solid mixture of boronic acid and boronate, yield: 1.8 g (~35%).

The crude boronate (601 mg) was weighed into a 50 mL flask with 312 mg of 3-bromosulfonamide and 10 mL of THF. The resulting solution was heated at 80-85 °C and ~50 mg of
 15 tetrakis(triphenylphosphine) palladium (0) was added followed by 1.0 mL of 1.0 M sodium carbonate. The reaction was maintained at 80-85 °C for three hours then was cooled and concentrated *in vacuo*. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (MgSO₄), and concentrated *in vacuo*. The product was purified by silica gel flash chromatography (Jones Flashmaster, 70 g SiO₂, gradient elution
 20 from 100% hexanes to 40% ethyl acetate over 30 minutes). Appropriate fractions were combined and concentrated *in vacuo* affording the product as a faintly yellow powder, yield: 75 mg (11%). ¹H-NMR (400MHz, CDCl₃): δ 8.07 (1H, m), 7.84 (1H, m), 7.68 (1H, m), 7.59 (1H, m), 7.56-7.45 (3H, m), 7.22 (1H, d), 6.88 (1H, s), 6.85 (1H, d), 4.98 (2H, s). MS (ES): 518 [M+H]⁺.

Example 56

25 Preparation of N-[(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)sulfonyl]acetamide



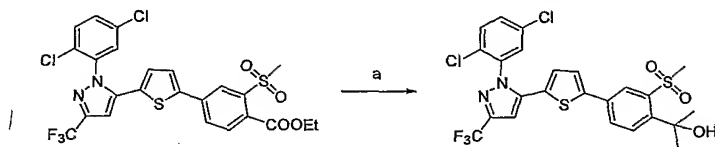
3-{5-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-thiophen-2-yl}-benzenesulfonamide was prepared as described in Example 1. Into a 250 mL flask was weighed 209.6 mg (433 μ mol) of the sulfonamide and 866 μ L of 1.0 M lithium bis(trimethylsilyl)amide. To the solution was added 123 μ L of acetic anhydride. The reaction was stirred at room temperature for 1 h then was washed into a separatory funnel with 1.0 M HCl and ethyl acetate. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and was concentrated *in vacuo*. The crude product was purified by reverse-phase HPLC affording the product as a colorless powder, yield: 47.0 mg (20%); ^1H NMR (400MHz, CDCl_3): δ 8.16(s, 1H), 7.91(d, J = 8 Hz, 1H), 7.66(d, J = 8 Hz, 1H), 7.4-7.6(m, 5H), 7.21(d, J = 4 Hz, 1H), 6.89(s, 1H), 6.79(d, J = 4 Hz, 1H), 2.04(s, 3H); MS (ES): 526 $[\text{M}+\text{H}]^+$.

The following compounds are prepared essentially according to the previous examples by substituting the appropriate anhydride:

- *N*-[3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)sulfonyl]-2,2-dimethylpropanamide; MS (ES): 602 and 604 [each $\text{M}+\text{H}]^+$.

Example 57

Preparation of 2-[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]propan-2-ol and [4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]methanol.



a) MeMgBr , THF, 0-25 $^\circ\text{C}$.

Ethyl 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)benzoate was prepared as described in Example 53. Into a 50 mL flask was weighed 209.4 mg of ester and 2.0 mL of anhydrous THF. The solution was cooled under nitrogen in an ice bath and 1.0 mL of 1.4 M MeMgBr in THF (Aldrich) was added. The reaction was removed from cooling and was stirred at room temperature for 1 h then was quenched by addition of saturated ammonium chloride. The reaction was washed into a separatory funnel with ethyl acetate and saturated ammonium chloride. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 25 x 150 mm SiO_2 , gradient elution from 100% hexanes to 100% ethyl acetate over 45 minutes). Appropriate fractions were combined and concentrated *in vacuo* affording the product as a cream colored semi-solid, yield: 157.1 mg (77%); ^1H NMR (400MHz, CDCl_3): δ 8.34(s, 1H), 7.65(d, J = 8 Hz, 1H), 7.59(s, 1H), 7.45-

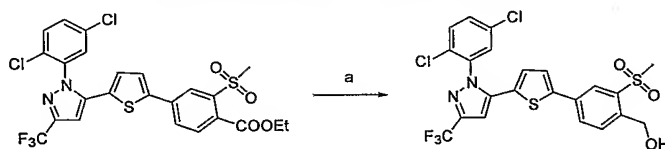
7.53(m, 3H), 7.26(d, $J=4$ Hz, 1H), 6.89(s, 1H), 6.85(d, $J=4$ Hz, 1H), 4.82(br s, 1H), 3.43(s, 3H), 1.71(s, 6H); MS (ES): 575 and 577 [each $M+H$]⁺.

The following compounds are prepared essentially according to the previous examples by substituting 3-Bromo-5-fluoro-benzoic acid for 4-Bromo-2-fluoro-benzoic acid:

- 5 • 2-[3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol; MS (ES): 575 and 577 [each $M+H$]⁺.
- 2-[3-{5-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol; MS (ES): 575 and 577 [each $M+H$]⁺.
- 10 • 2-[3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol; MS (ES): 541 [$M+H$]⁺.

Example 58

Preparation of [4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]methanol.

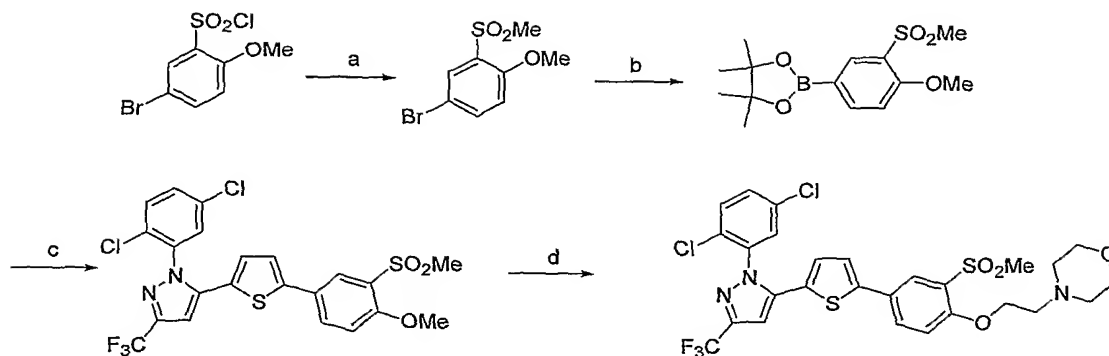


- 15 a) LiBH_4 , THF, 25 °C.

Into a 4 mL vial was weighed 102.0 mg of ester and 1.0 mL of anhydrous THF. The resulting solution was cooled in an ice bath and 200 μL of 2.0 M LiBH_4 in THF (Aldrich) was added. The reaction was allowed to warm to room temperature where it remained for 3 days. The reaction was then washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated,
20 washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The crude material was purified by reverse-phase HPLC to afford the product as a colorless solid, yield: 14.0 mg (15%); ^1H NMR (400MHz, CDCl_3): δ 8.17(s, 1H), 7.72(d, $J=8$ Hz, 1H), 7.5-7.6(m, 2H), 7.50(m, 2H), 7.26(s, 1H), 6.89(s, 1H), 6.85(d, $J=4$ Hz, 1H), 4.96(s, 2H), 3.20(s, 3H); MS (ES): 547 and 549 [each $M+H$]⁺.

Example 59

- 25 Preparation of 4-(2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethyl)morpholine.



a) NaHCO_3 , Na_2SO_3 , H_2O , 85 °C, then Me_2SO_2 , NaHCO_3 , H_2O , 120 °C; b) Bis(pinacolato)diboron, $\text{Pd}(\text{dppf})$, KOAc , DMSO , 100 °C. c) $(\text{Ph}_3\text{P})_4\text{Pd}$, 5-(5-Bromothiophen-2-yl)-1-(2,5-dichlorophenyl)-3-trifluoromethyl-1H-pyrazole, Na_2CO_3 , THF-water, 80 °C; d) BBr_3 , CH_2Cl_2 , 25 °C; K_2CO_3 , 4-(2-Chloroethyl)morpholine hydrochloride, DMF, 100 °C.

Into a 1L flask was weighed 41.4 g of sodium sulfite, 29 g of sodium bicarbonate, and 175 mL of water. The suspension was stirred at 80-85 °C and sulfonyl chloride (50 g) was added portionwise over 3 h. Heating was continued for 3 h then the reaction was allowed to stand at room temperature for 3 days. The intermediate sulfinate was collected by filtration with added water then was dried under high vacuum. The dry solids (45 g) were returned to a 1 L flask along with 28.0 g of sodium bicarbonate, 25 mL of dimethylsulfate, and 63.75 mL of water. The resulting suspension was heated at 120-125 °C, where it became a solution, for 20 h then was cooled and washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The product was precipitated from dichloromethane with hexanes and was dried under high vacuum to afford the intermediate 4-Bromo-2-methanesulfonyl-1-methoxy-benzene as a colorless powder, yield: 31.1 g (67%). ^1H NMR (400MHz, CDCl_3): δ 8.08(2, 1H), 7.69(d, J = 8 Hz, 1H), 6.96(d, J = 8 Hz, 1H), 4.00(s, 3H), 3.21(s, 3H).

Into a 500 mL flask was weighed 15.48 g (58.4 mmol) of bromide, 23 g of boronate, 21 g of potassium acetate, 5 g of dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct, and 150 mL of DMSO. The resulting suspension was heated at ~100 °C for 20 h then was cooled and diluted with 200 mL of ethyl acetate and 200 mL of water. The suspension was filtered through celite to remove solids and the filtrate was transferred to a separatory funnel. The aqueous phase was separated and washed with ethyl acetate. The ethyl acetate washings were combined, washed with brine, were dried (Na_2SO_4) and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 65 x 200 mm SiO_2 , gradient elution from 100% hexanes to 100% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo*. The partially purified product was dissolved in ethyl acetate and was precipitated with hexanes. The intermediate 2-

(3-Methanesulfonyl-4-methoxy-phenyl)-4,4,5,5-tetramethyl-[1,3,2]dioxaborolane was recovered as a faintly yellow powder, yield: 12.56 g (77%). ^1H NMR (400MHz, CDCl_3): δ 8.43(s, 1H), 8.01(d, $J=8$ Hz, 1H), 7.03(d, $J=8$ Hz, 1H), 4.02(s, 3H), 3.20(s, 3H), 1.33(s, 12H).

Into a 250 mL flask was weighed 5.0 g (11.3 mmol) of 5-(5-Bromothiophen-2-yl)-1-(2,5-dichlorophenyl)-3-trifluoromethyl-1H-pyrazole, (4.43 g (14.2 mmol) of boronate, and 100 mL of THF. The resulting solution was heated at 80-85 °C and ~1 g of tetrakis(triphenylphosphine) palladium (0) was added followed by 10 mL of 1.0 M Na_2CO_3 . The reaction was maintained at 80-85 °C for 3 h then was concentrated to remove THF. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. Crude product was purified by silica gel flash chromatography (Biotage, 65 x 200 mm SiO_2 , gradient elution from 100% hexanes to 60% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* affording the intermediate methoxy compound as a yellow solid, yield: 2.75 g (44%).

The methoxy compound described, 2.60 g, (4.75 mmol) was weighed into a 250 mL flask along with 75 mL of dichloromethane. The resulting solution was cooled to ~-70 °C and 14 mL of 1.0 M BBr_3 in dichloromethane was added. The reaction was allowed to warm to room temperature where it remained for 4 h. The reaction was then quenched by addition of methanol and was concentrated *in vacuo*. The residue was washed into a separatory funnel with ethyl acetate and 1 M HCl . The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 40 x 150 mm SiO_2 , gradient elution from 100% hexanes to 60% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* affording the intermediate 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenol as a colorless solid, yield: 1.39 g (54.9%); MS (ES): 533 and 535 [each $\text{M}+\text{H}$] $^+$.

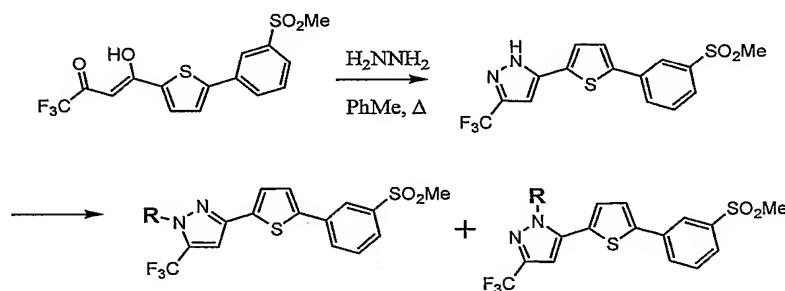
Into a 50 mL flask was weighed 249.2 mg (467 mmol) of phenol, 263 mg of potassium carbonate, 368 mg (1.98 mmol) of 4-(2-Chloroethyl)morpholine hydrochloride, and 3 mL of DMF. The resulting suspension was heated at 100-105 °C for 30 minutes then was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 25 x 150 mm SiO_2 , gradient elution from 100% dichloromethane to 89:10:1 dichloromethane-methanol-ammonium hydroxide over 45 minutes). Appropriate fractions were combined and concentrated *in vacuo* then were dissolved in dichloromethane and product was precipitated by addition of hexanes. The precipitate was collected by filtration and was dried affording

the product as an off-white solid, yield: 78 mg (26%). ¹H NMR (400MHz, CDCl₃): δ 8.11(s, 1H), 7.67(d, *J* = 8 Hz, 1H), 7.59(s, 1H), 7.49(m, 2H), 7.12(d, *J* = 4 Hz, 1H), 7.04(d, *J* = 8 Hz, 1H), 6.86(s, 1H), 6.81(d, *J* = 4 Hz, 1H), 4.26(t, *J* = 5 Hz, 2H), 3.70(t, *J* = 5 Hz, 4H), 3.33(s, 3H), 2.87(t, *J* = 5 Hz, 2H), 2.58(t, *J* = 5 Hz, 4H); MS (ES): 646 and 648 [each M+H]⁺.

5 The following compounds are prepared essentially according to the previous examples by substituting an alkyl halide for 4-(2-Chloroethyl)morpholine hydrochloride:

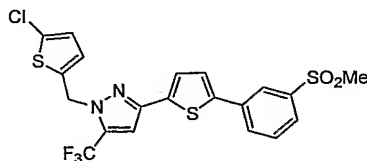
- 5-(2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethyl)-1H-tetrazole; MS (ES): 629 and 631 [each M+H]⁺.
- 2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethanol; MS (ES): 577 and 579 [each M+H]⁺.

Scheme 22



Another method used for preparing examples of the invention is shown as Example 60. 4,4,4-Trifluoro-1-[5-(3-methanesulfonylphenyl)-thiophen-2-yl]-butane-1,3-dione was condensed directly with hydrazine to form pyrazole 3-[5-(3-Methanesulfonylphenyl)-thiophen-2-yl]-5-trifluoromethyl-1H-pyrazole. Alkylation of a pyrazole such as 3-[5-(3-Methanesulfonylphenyl)-thiophen-2-yl]-5-trifluoromethyl-1H-pyrazole could result in a mixture of positional isomers which could be separated by one skilled in the art

Example 60



Preparation of 1-[(5-chloro-2-thienyl)methyl]-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazole.

Into a 100 mL flask was weighed 5.18 g (13.8 mmol) of 4,4,4-Trifluoro-1-[5-(3-methanesulfonylphenyl)-thiophen-2-yl]-butane-1,3-dione, 50 mL of toluene, and 450 μL (14.3 mmol) of hydrazine. The resulting solution was heated at 100 °C for 21 h. The reaction was then

concentrated *in vacuo* and was partially purified by silica gel flash chromatography (Jones Flashmaster, 70 g SiO₂, gradient elution from 100% hexanes to 20% ethyl acetate over 30 minutes. Appropriate fractions were combined, concentrated *in vacuo*, and were precipitated from ethyl acetate with hexanes to afford the intermediate 3-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-5-trifluoromethyl-1H-

pyrazole as a faintly yellow, semi-crystalline solid, yield: 1.24 g (24%). ¹H NMR (400MHz, CDCl₃): δ 8.15(s, 1H), 7.86(d, *J* = 8 Hz, 2H), 7.62(t, *J* = 8 Hz, 1H), 7.45(d, *J* = 4 Hz, 1H), 7.39(d, *J* = 4 Hz, 1H), 6.70(s, 1H), 3.12(s, 3H); MS (ES): 373 [M+H]⁺.

Into an 8 mL vial was weighed 96.6 mg (259 μmol) of pyrazole, 93.5 mg of potassium carbonate, 1 mL of DMF, and 35.6 μL of 2-Chloro-5-chloromethylthiophene. The reaction was heated at 80-85 °C for 3 h then was washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was separated, was dried (MgSO₄), and concentrated *in vacuo*. HPLC analysis showed the product to be a 1:1 mixture of isomers. Each was purified by reverse-phase HPLC purification to afford the products as colorless waxes.

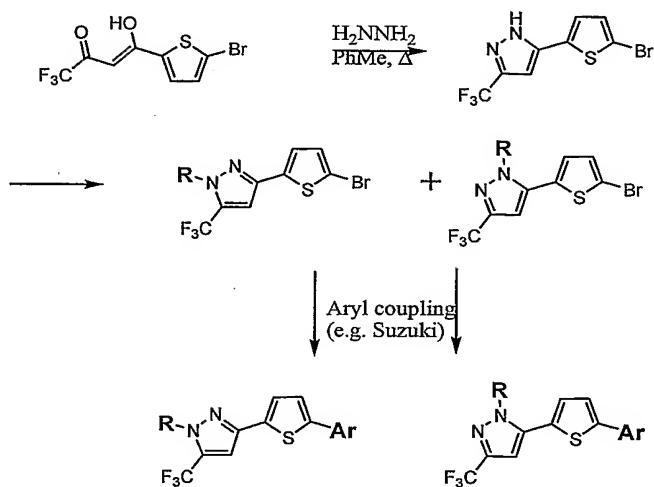
1-[(5-chloro-2-thienyl)methyl]-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazole: ¹H NMR (400MHz, CDCl₃): δ 8.19(s, 1H), 7.86(m, 2H), 7.60(t, *J* = 8 Hz, 1H), 7.39(d, *J* = 4 Hz, 1H), 7.34(d, *J* = 4 Hz, 1H), 6.86(m, 2H), 6.78(d, *J* = 4 Hz, 1H), 5.47(s, 2H), 3.11(s, 3H); MS (ES): 503 [M+H]⁺.

1-[(5-chloro-2-thienyl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole: ¹H NMR (400MHz, CDCl₃): δ 8.18(s, 1H), 7.88(m, 2H), 7.64(t, *J* = 8 Hz, 1H), 7.44(d, *J* = 4 Hz, 1H), 7.17(d, *J* = 4 Hz, 1H), 6.75(d, *J* = 4 Hz, 1H), 6.71(m, 2H), 5.56(s, 2H), 3.13(s, 3H); MS (ES): 503 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples by substituting an appropriate reagent for 2-Chloro-5-chloromethylthiophene.

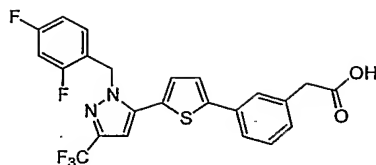
- 3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-thienylcarbonyl)-5-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (400MHz, CDCl₃): δ 8.43(0.5 H, dd, *J* = 1,4 Hz), 8.33(0.5 H, dd, *J* = 1,4 Hz), 8.23(0.5 H, t, *J* = 1 Hz), 8.18(0.5 H, t, *J* = 1 Hz), 7.86-7.96(m, 3H), 7.63(1H, q, *J* = 8 Hz), 7.49(1H, m), 7.44(0.5 H, d, *J* = 4 Hz), 7.40(0.5 H, d, *J* = 4 Hz), 7.21-7.28(1H, m), 7.20(0.5 H, s), 6.89(0.5H, s), 3.13(1.5 H, s), 3.11(1.5H, s); MS (ES): 483 [M+H]⁺.
- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-thienylcarbonyl)-3-(trifluoromethyl)-1H-pyrazole; ¹H-NMR (400MHz, CDCl₃): δ 8.43(0.5 H, dd, *J* = 1,4 Hz), 8.33(0.5 H, dd, *J* = 1,4 Hz), 8.23(0.5 H, t, *J* = 1 Hz), 8.18(0.5 H, t, *J* = 1 Hz), 7.86-7.96(m, 3H), 7.63(1H, q, *J* = 8 Hz), 7.49(1H, m), 7.44(0.5 H, d, *J* = 4 Hz), 7.40(0.5 H, d, *J* = 4 Hz), 7.21-7.28(1H, m), 7.20(0.5 H, s), 6.89(0.5H, s), 3.13(1.5 H, s), 3.11(1.5H, s); MS (ES): 483 [M+H]⁺.

- 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylsulfonyl)-3-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.18 (1H, m), 7.96-7.81 (4H, m), 7.74-7.60 (2H, m), 7.58-7.48 (2H, m), 7.45 (1H, d), 7.40 (1H, d), 6.67 (1H, s), 3.13 (3H, s). MS (ES): 513 $[\text{M}+\text{H}]^+$.
- 3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylsulfonyl)-5-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.18(1H, s), 8.14(2H, d, $J=8$ Hz), 7.88(2H, d, $J=8$ Hz), 7.60(4H, m), 7.38(2H, m), 7.00(1H, s), 3.11(3H, s); MS (ES): 513 $[\text{M}+\text{H}]^+$.
- 1-[(2,4-difluorophenyl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.14 (1H, m), 7.89 (1H, m), 7.83 (1H, m), 7.63 (1H, t), 7.39 (1H, d), 7.06 (1H, d), 6.95 (1H, m), 6.89-6.79 (2H, m), 6.74 (1H, s), 5.54 (2H, s), 3.11 (3H, s). MS (ES): 499 $[\text{M}+\text{H}]^+$.
- 1-[(2,4-difluorophenyl)methyl]-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazole; $^1\text{H-NMR}$ (400MHz, CDCl_3): δ 8.18 (1H, m), 7.91-7.81 (2H, m), 7.60 (1H, t), 7.39 (1H, d), 7.34 (1H, d), 7.10 (1H, m), 6.92-6.79 (3H, m), 5.48 (2H, s), 3.10 (3H, s). MS (ES): 499 $[\text{M}+\text{H}]^+$.

Scheme 23

Other examples of the invention were prepared by a different route of assembly as shown in Scheme 23. Similar to Example 60, 1-(5-Bromothiophen-2-yl)-4,4,4-trifluoro-butane-1,3-dione can be condensed with hydrazine directly to form a pyrazole. As in Example 60, acylation or alkylation can produce a mixture of isomers which could be separated at the stage of the bromide or such a mixture could be separated after aryl coupling.

Example 61



Preparation of [3-(5-{1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetic acid.

Into a 250 mL flask was weighed 5.00 g (23.2 mmol) of (3-Bromophenyl)acetic acid, 50 mL of methanol, and 50 mL of 4.0 M HCl in dioxane (Aldrich). The reaction was stirred at room temperature for 3 h then was concentrated *in vacuo*. The residue was washed into a separatory funnel with ethyl acetate and 10% ammonium hydroxide. The ethyl acetate was separated, was dried (MgSO₄), and was concentrated *in vacuo*. The intermediate (3-Bromophenyl)acetic acid methyl ester was recovered as a colorless oil, yield, 5.2 g (98%).

Into a 250 mL flask was weighed 5.18 g of ester (22.6 mmol) along with 7.51 g of bis(pinacolato)diboron, 6.6 g of potassium carbonate, 68 mL of DMSO, and 1.1 g of dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct. The resulting suspension was heated at 80-85 °C overnight then was washed into a separatory funnel with water and ether. The ether was separated, washed with brine, was dried (MgSO₄), and was concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Jones Flashmaster, two 70 g columns, gradient elution from 100% hexanes to 40% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* to afford the intermediate [3-(4,4,5,5-Tetramethyl-[1,3,2]dioxaborolan-2-yl)phenyl]acetic acid methyl ester as a faintly yellow oil, yield: 3.02 g (47%). ¹H NMR (400MHz, CDCl₃): δ 7.73(m, 2H), 7.3-7.4(m, 2H), 3.70(s, 3H), 3.65(s, 2H), 1.36(s, 12H).

Into a 500 mL flask was weighed 15.1 g (50.15 mmol) of 4,4,4-Trifluoro-1-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-butane-1,3-dione, 150 mL of toluene, and 1.575 mL (1.1 eq) of hydrazine. The intermediate hydrazone precipitated from solution over 15 minutes then the reaction was heated to 100-105 °C where it remained for 18 h. The reaction was then concentrated to dryness *in vacuo* and the residue was dissolved in dichloromethane and precipitated with hexanes. The semicrystalline precipitate was collected by filtration and was dried under high vacuum to afford the intermediate 5-(5-Bromothiophen-2-yl)-3-trifluoromethyl-1H-pyrazole as a colorless solid, yield: 9.90 g (66%).

Into a 500 mL flask was weighed 5.0 g (16.8 mmol) of pyrazole, 5.4 g of potassium carbonate, 4.7 g (22.7 mmol) of 1-Bromomethyl-2,4-difluorobenzene, and 50 mL of DMF. The resulting suspension was stirred at 100-105 °C for 1 h then was allowed to cool to room temperature. The reaction was washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was

separated, washed with water, brine, was dried (MgSO₄), and concentrated *in vacuo*. The resulting mixture of isomers was purified by silica gel flash chromatography (5 x 30 cm, 5% ethyl acetate-hexanes) to afford the 5-(5-Bromothiophen-2-yl)-1-(2,4-difluoro-benzyl)-3-trifluoromethyl-1H-pyrazole as a colorless oil, yield: 2.21 g (31%) and 3-(5-Bromo-thiophen-2-yl)-1-(2,4-difluorobenzyl)-5-

trifluoromethyl-1H-pyrazole as a colorless oil, yield: 4.62 g (65%).

Into a 250 mL flask was weighed 1.124 g (2.66 mmol) of 5-(5-Bromothiophen-2-yl)-1-(2,4-difluoro-benzyl)-3-trifluoromethyl-1H-pyrazole, 1.5 g of boronate (5.43 mmol), 100 mL of THF, and 10 mL of 1.0 M sodium carbonate. The resulting solution was heated at 80-85 °C in an oil bath and 318 mg of tetrakis(triphenyl)phosphine palladium (0) was added. The reaction was heated for 18 h then was concentrated *in vacuo* to remove THF. The residue was washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (MgSO₄), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Jones Flashmaster, 70 g SiO₂, gradient elution from 100% hexanes to 40% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* to afford the intermediate (3-{5-[1-(2,4-Difluorobenzyl)-5-trifluoromethyl-1H-pyrazol-3-yl]-thiophen-2-yl}-phenyl)acetic acid methyl ester as a colorless oil, yield: 445 mg (34%).

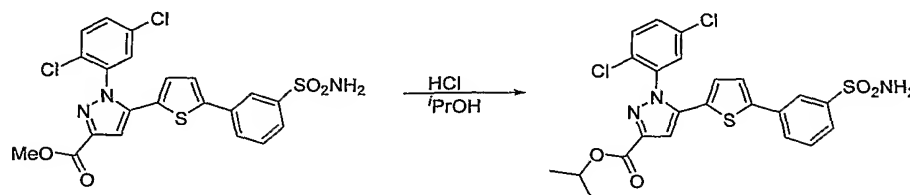
The intermediate ester was dissolved in 10 mL of THF, 10 mL of methanol, and a solution of LiOH-H₂O (150 mg in 2 mL of water) was added. The resulting solution was stirred at 60-65 °C for 3 h then was concentrated *in vacuo* to remove methanol. The residue was washed into a separatory funnel with dichloromethane and water. The aqueous phase was separated and was acidified by addition of concentrated HCl. The aqueous phase was then washed with dichloromethane three times and the washings were combined, dried (Na₂SO₄), and concentrated *in vacuo*. The residue was purified by reverse-phase HPLC to afford the acid as a colorless solid, yield: 52 mg (12%). ¹H NMR (400MHz, DMSO-*d*₆): δ 7.5-7.55(m, 3H), 7.40(d, *J* = 4 Hz, 1H), 7.34(t, *J* = 8 Hz, 1H), 7.23(m, 2H), 7.09(s, 1H), 7.0-7.08(m, 2H), 5.59(s, 2H), 3.59(s, 2H); MS (ES): 479 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples by substituting the appropriate reagents:

- [3-(5-{1-[(5-chloro-2-thienyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetic acid; ¹H-NMR (400MHz, CDCl₃): δ 7.55-7.49 (2H, m), 7.38 (1H, m), 7.31 (1H, d), 7.27 (1H, m), 7.11 (1H, d), 6.73 (1H, d), 6.68 (1H, d), 6.66 (1H, s), 5.54 (2H, s), 3.70 (2H, s). MS (ES): 483 [M+H]⁺.

Example 62

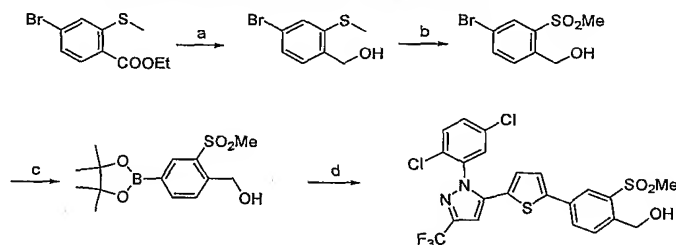
Preparation of 1-methylethyl 5-{5-[3-(aminosulfonyl)phenyl]-2-thienyl}-1-(2,5-dichlorophenyl)-1H-pyrazole-3-carboxylate



- 5 Into a 25 mL flask was weighed 114 mg (224 mmol) of methyl 1-(2,5-dichlorophenyl)-5-(5-(3-sulfamoylphenyl)thiophen-2-yl)-1H-pyrazole-3-carboxylate, 156 mg of KF, 4 mL of isopropyl alcohol, and 200 μ L of concentrated HCl. The reaction was heated at 80-85 $^{\circ}$ C for 3 days. The reaction was then washed into a separatory funnel with ethyl acetate and water. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. Product was further purified by
- 10 silica gel flash chromatography (Jones Flashmaster, 25 g SiO_2 , gradient elution from 20% ethyl acetate to 60% ethyl acetate over 30 minutes). Appropriate fractions were combined and concentrated *in vacuo* to afford the product as a colorless powder, yield: 53.3 mg (44%). ^1H NMR (400MHz, CDCl_3): δ 8.05(s, 1H), 7.83(d, J = 8 Hz, 1H), 7.66(d, J = 8 Hz, 1H), 7.59(s, 1H), 7.44-7.51(m, 3H), 7.21(d, J = 4 Hz, 1H), 7.13(s, 1H), 6.81(d, J = 4 Hz, 1H), 5.33(heptet, J = 6 Hz, 1H), 5.08(s, 2H), 1.41(d, J = 7 Hz, 6
- 15 H); MS (ES): 536 $[\text{M}+\text{H}]^+$.

Example 63

Preparation of [4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]methanol.



- 20 a) LiBH_4 , THF, 85 $^{\circ}$ C; b) MCPBA, CH_2Cl_2 , 25 $^{\circ}$ C; c) Bis(pinacolato)diboron, $\text{Pd}(\text{dppf})$, KOAc, DMSO, 100 $^{\circ}$ C. C) $(\text{Ph}_3\text{P})_4\text{Pd}$, 5-(5-Bromothiophen-2-yl)-1-(2,5-dichlorophenyl)-3-trifluoromethyl-1H-pyrazole, Na_2CO_3 , THF-water, 80 $^{\circ}$ C.

- 4-Bromo-2-methylsulfanylbenzoic acid ethyl ester was prepared as described in Example 53. Into a 1 L flask was weighed 27.5 g of ester (99.9 mmol) and 150 mL of THF. A solution of 2.0 M
- 25 LiBH_4 in THF (50 mL, 100 mmol) was then added and the reaction was heated to 80-85 $^{\circ}$ C where it remained for 23h. The reaction was then removed from heat and was cooled in an ice bath as it was

quenched by addition of acetone. The reaction was then concentrated *in vacuo* and was washed into a separatory funnel with ethyl acetate and 1 M HCl. The ethyl acetate was separated, washed with brine, was dried (Na₂SO₄), and concentrated *in vacuo*. The intermediate (4-Bromo-2-methylsulfonyl-phenyl)-methanol was recovered as a colorless oil that solidified on standing, yield: 25.5 g (100%). ¹H NMR (400MHz, CDCl₃): δ 7.24-7.34(m, 3H), 4.69(s, 2H), 2.50(s, 3H).

The alcohol was then dissolved in 250 mL of dichloromethane, was cooled to 0-3 °C in an ice bath, and 44 g of 3-chloroperbenzoic acid (77% max., Aldrich) was added portionwise. The reaction was then allowed to warm to room temperature where it remained for 22 h. The reaction was then concentrated *in vacuo* to remove dichloromethane and the residue was washed into a separatory funnel with ethyl acetate and 1 M NaOH. The ethyl acetate was separated, washed with 1 M NaOH, was dried (Na₂SO₄), and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 65 x 200 mm SiO₂, gradient elution from 100% hexanes to 100% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* to afford the intermediate (4-Bromo-2-methanesulfonyl-phenyl)-methanol as a colorless, semi-crystalline solid, yield: 17.13 g (65%). ¹H NMR (400MHz, CDCl₃): δ 8.18(s, 1H), 7.77(d, *J* = 8 Hz, 1H), 7.46(d, *J* = 8 Hz, 1H), 4.92(s, 2H), 3.19(s, 3H), 2.94(br s, 1H).

Into a 1 L flask was weighed 17.13 g of bromide, 25 g of bis(pinacolato)diboron, 5.0 g of dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct, 23 g of potassium acetate, and 175 mL of DMSO. The resulting suspension was heated at 98-102 °C for 18 h then was diluted with 200 mL of ethyl acetate and 200 mL of water. The resulting suspension was filtered through celite to remove solids and the filtrate was transferred to a separatory funnel. The aqueous phase was separated and washed with ethyl acetate. The ethyl acetate washings were combined, washed with brine, were dried (Na₂SO₄) and concentrated *in vacuo*. The residue was purified by silica gel flash chromatography (Biotage, 65 x 200 mm SiO₂, gradient elution from 100% hexanes to 40% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo*. The partially purified product was dissolved in dichloromethane and was precipitated with hexanes. The intermediate [2-Methanesulfonyl-4-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yl)-phenyl]-methanol was recovered as an off-white powder, yield: 8.78 g (43%). ¹H NMR (400MHz, CDCl₃): δ 8.45(s, 1H), 8.04(d, *J* = 8 Hz, 1H), 7.57(d, *J* = 8 Hz, 1H), 4.96(s, 1H), 3.17(s, 3H), 1.35(s, 6H), 1.24(s, 6H).

Into a 250 mL flask was weighed 2.52 g (5.7 mmol) of 5-(5-Bromothiophen-2-yl)-1-(2,5-dichlorophenyl)-3-trifluoromethyl-1H-pyrazole, 3.6 g of boronate, and 100 mL of THF. The resulting solution was heated at 80-85 °C and ~200 mg of tetrakis(triphenylphosphine) palladium (0) was added. The reaction was heated for 3 h then was cooled and concentrated to remove THF. The residue was

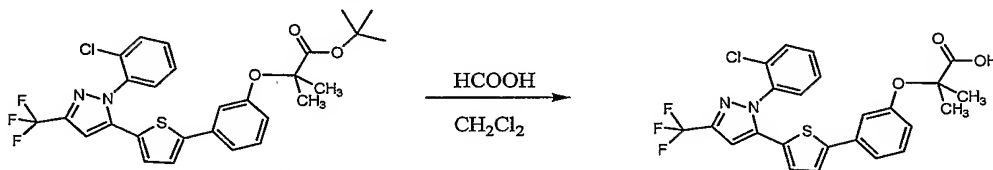
washed into a separatory funnel with ethyl acetate and 1.0 M sodium carbonate. The ethyl acetate was separated, washed with brine, was dried (Na_2SO_4), and concentrated *in vacuo*. The crude product was purified by silica gel flash chromatography (Biotage, 25 x 150 mm SiO_2 , gradient elution from 100% hexanes to 100% ethyl acetate over 1 h). Appropriate fractions were combined and concentrated *in vacuo* to afford the product as a colorless solid, yield: 348 mg (11%); ^1H NMR (400MHz, CDCl_3): δ 8.17(s, 1H), 7.72(d, J = 8 Hz, 1H), 7.5-7.6(m, 2H), 7.50(m, 2H), 7.26(s, 1H), 6.89(s, 1H), 6.85(d, J = 4 Hz, 1H), 4.96(s, 2H), 3.20(s, 3H); MS (ES): 547 and 549 [each $\text{M}+\text{H}$] $^+$.

The following compound is prepared essentially according to the previous examples by substituting the appropriate reagents:

- [2-(methylsulfonyl)-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]methanol; MS (ES): 548 [$\text{M}+\text{H}$] $^+$.

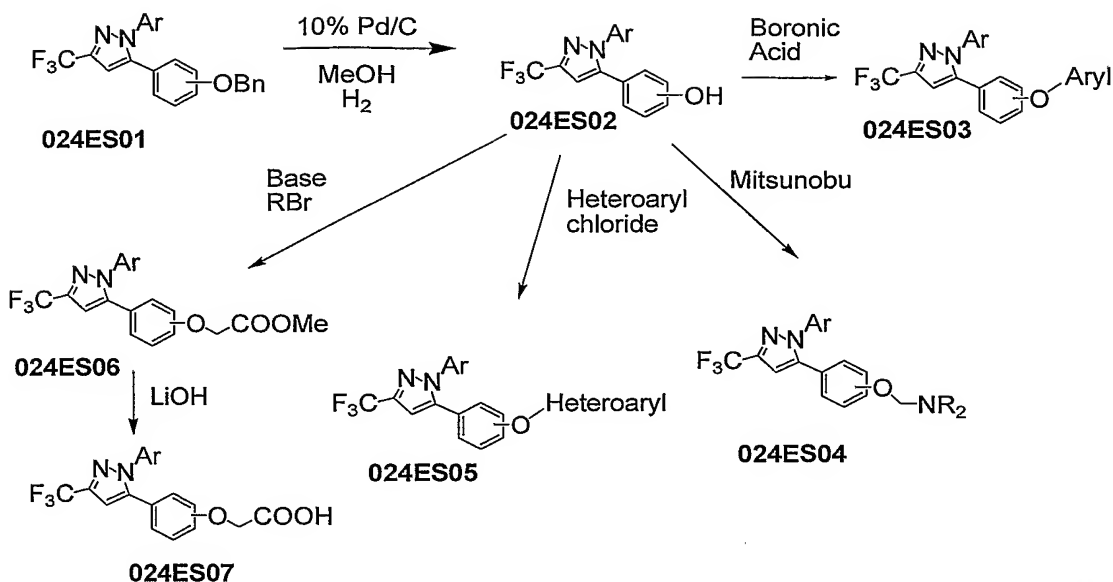
Example 64

Preparation of 2-(3-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenoxy)-2-methylpropanoic acid)



To a solution of tert-butyl 2-(3-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenoxy)-2-methylpropanoate (47 mg, 84 μmol) in dichloromethane (0.5 mL) was added formic acid (1.0 mL). The resulting pale orange solution was allowed to stir at ambient temperature. After 5 hours at ambient temperature, LC/MS analysis of the reaction showed ~5% of the starting ester remaining. After 7 hours stirring at ambient temperature the reaction mixture was concentrated under reduced pressure to afford crude product. This material was purified by flash column chromatography eluting with a gradient from CH_2Cl_2 to 10 % $\text{MeOH}/\text{CH}_2\text{Cl}_2$ to afford 2-(3-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenoxy)-2-methylpropanoic acid (21.7 mg, 51% yield) as an off white foam. MS(ES): 509 [$\text{M}+\text{H}$] $^+$.

Scheme 24



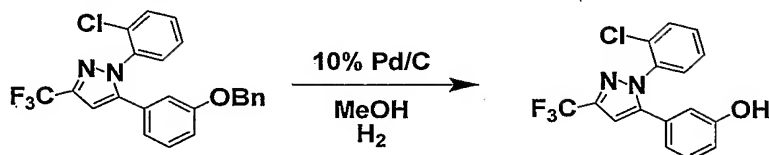
As depicted in Scheme 24, hydroxyl group on C-phenyl can be transformed into other groups. Benzyloxyphenyl pyrazoles **024ES01** (prepared in a manner similar to Example 2c) can be deprotected to afford hydroxyphenyl pyrazoles **024ES02**. The free hydroxyl group can be derivatized via: copper-mediated arylboronic acid coupling to afford diaryl ethers **024ES03**, Mitsunobu reaction with alcohols to afford aryl-alkyl ethers **024ES04**, reaction with heteroaryl halides to afford aryl-heteroaryl ethers **024ES05**, or alkylated with alkyl halides to afford aryl alkyl ethers **024ES06**, which may be further derivatized or transformed (See **024ES07**).

Example 65

2-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)pyrimidine

Example 65a

Preparation of 3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol



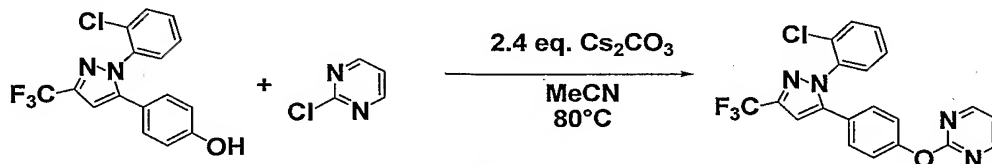
To a solution of 5-(3-(benzyloxy)phenyl)-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole in MeOH (100mL) was added 10% palladium on carbon (1.04g). The black suspension was shaken on the Parr hydrogenator at 40-50psi hydrogen pressure for 5 hours. At this time the reaction was incomplete as evidenced by HPLC analysis. The reaction suspension was treated with additional Pd/C and shaken under 60psi hydrogen pressure for an additional 16 hours. At this time HPLC showed no remaining starting 5-(3-(benzyloxy)phenyl)-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole. The

reaction mixture was filtered through a pad of Celite that was then washed thoroughly with MeOH. The filtrate was concentrated under reduced pressure to afford 3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol as a brittle foam. This material was pure enough for use in subsequent transformations. MS(ES): 339 [M+H]⁺.

- 5 The following compound is prepared essentially according to the previous examples:
4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenol, MS(ES): 339 [M+H]⁺.

Example 65b

Preparation of 2-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)pyrimidine



- 10 To a suspension of 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol (ref hydrogenation below) (60 mg, 180 μmol) and Cs₂CO₃ (140 mg, 400 μmol) in acetonitrile (2 mL) was added 2-chloropyrimidine (66 mg, 580 μmol). The suspension was then heated to 80°C in an oil bath. After stirring for 16 hours at 80 °C the suspension was filtered through a plug of silica gel (1 g), which was eluted with EtOAc. The filtrate was concentrated under reduced pressure and purified by flash
15 column chromatography eluting with a gradient from 10% to 30% EtOAc/hexane to afford 2-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)pyrimidine (55 mg, 75% yield) as a white powder. MS(ES): 417[M+H]⁺.

The following compound is prepared essentially according to the previous examples:

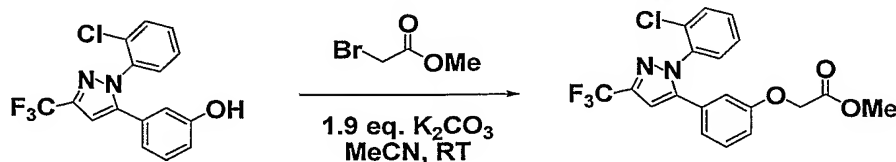
2-(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)pyrazine MS(ES): 417
20 [M+H]⁺.

Example 66

2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetic acid

Example 66a

Preparation of methyl 2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetate



- 25 To a suspension of 3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol (229 mg, 0.68 mmol) and K₂CO₃ (179 mg, 1.3 mmol) in acetonitrile (3.0 mL) was added methyl bromoacetate

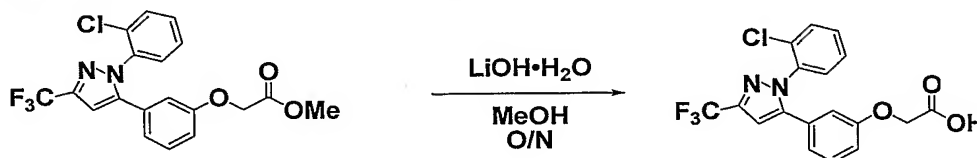
(85 μ L, 0.90 mmol). The suspension was stirred at ambient temperature for 16 hours at which time HPLC analysis showed conversion to a product with a slightly longer retention time. The reaction suspension was filtered through a plug of Celite that was then washed thoroughly with EtOAc. The filtrate was concentrated to afford a pale yellow oil. This material was further purified by flash column chromatography eluting with a gradient from 0% to 28% EtOAc/hexane to afford methyl 2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetate (158 mg, 57% yield) as an oil. MS(ES): 411[M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethanol, MS(ES): 383 [M+H]⁺.
- ethyl ({4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}oxy)acetate, MS(ES): 512 [M+Na]⁺.
- 2-({4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}oxy)-N,N-diethylacetamide, MS(ES): 540 [M+Na]⁺.
- 4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl (1-methylethyl)carbamate, MS(ES): 512 [M+Na]⁺.

Example 66b

Preparation of 2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetic acid



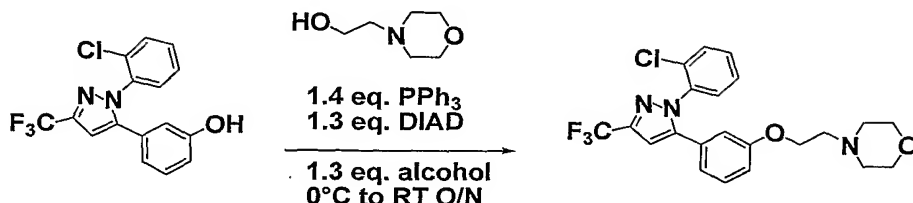
To a solution of methyl 2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetate (140 mg, 0.34 mmol) in MeOH (5 mL), was added lithium hydroxide monohydrate (60 mg, 1.42 mmol). The resulting mixture was stirred at ambient temperature for 18 hours. The reaction mixture was then concentrated under reduced pressure and the residue was taken up in CH₂Cl₂ and H₂O. The aqueous was made acidic by the addition of 1 N HCl. The layers were separated and the acidic aqueous was further extracted with CH₂Cl₂ (3x). The combined organic extracts were dried over Na₂SO₄, filtered, and concentrated under reduced pressure. This white solid was taken up in warm CH₂Cl₂ and hexane and the resulting solution was cooled in an ice bath. Filtration, washing with hexane and drying of the precipitated solids afforded 2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)acetic acid (69 mg, 51% yield) as a white solid. MS(ES): 397[M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- ({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)acetic acid, MS(ES): 397 [M+H]⁺.

Example 67

Preparation of 4-(2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)ethyl)morpholine



To a solution of 3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol (155 mg, 0.5 mmol) and triphenylphosphine (170 mg, 0.65 mmol) in THF (2 mL) was added 2-morpholinoethanol (72 μ L, 0.59 mmol). The solution was cooled in an ice bath and treated with diisopropylazodicarboxylate (125 μ L, 0.64 mmol). After a few minutes the ice bath was removed and the reaction was allowed to stir while warming to ambient temperature. After stirring for 16 hours LC/MS analysis showed desired product and triphenylphosphine oxide as the major peaks. The reaction solution was concentrated under reduced pressure and the resulting yellow oil was purified by flash column chromatography eluting with 30% followed by 40% EtOAc/hexane, and then a gradient of CH₂Cl₂ to 4% MeOH/CH₂Cl₂. The white solid that was obtained was found to be contaminated with triphenylphosphine oxide. This crude product was further purified by normal phase preparative HPLC eluting with a gradient from CH₂Cl₂ to 10% isopropanol/CH₂Cl₂ to afford 4-(2-(3-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenoxy)ethyl)morpholine (139 mg, 67% yield) as a thick syrup. MS(ES): 452[M+H]⁺.

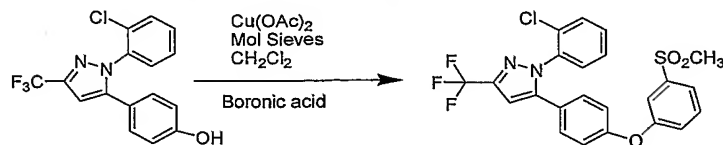
The following compounds are prepared essentially according to the previous examples:

- 2-({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)-N,N-dimethylethanamine. MS(ES): 410[M+H]⁺.
- 1-[2-({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]piperidine MS(ES): 450[M+H]⁺.
- 2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)-N,N-dimethylethanamine, MS(ES): 410 [M+H]⁺.
- 4-[2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]morpholine, MS(ES): 452 [M+H]⁺.

- 1-[2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]piperidine,
MS(ES): 450 [M+H]⁺.

Example 68

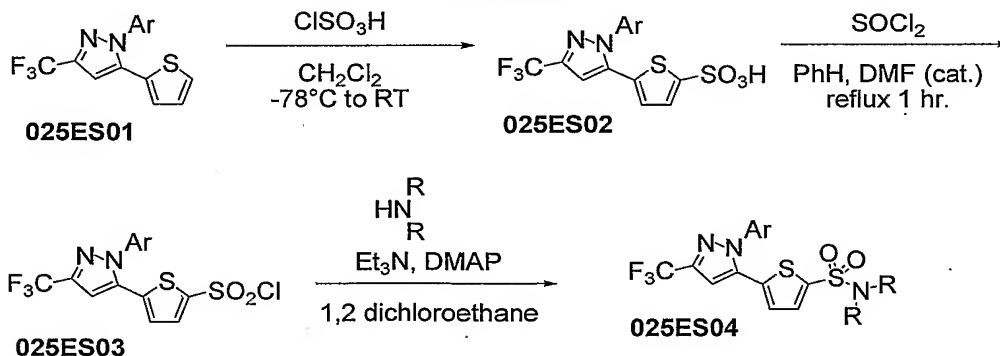
1-(2-chlorophenyl)-5-(4-{[3-(methylsulfonyl)phenyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole



5

A mixture of 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenol (169 mg, 0.5 mmol), 3-methylsulfonylphenylboronic acid (200 mg, 1 mmol), Cu(OAc)₂ (181 mg, 1 mmol), and NEt₃ (35 μ L, 2.5 mmol) and molecule sieves (4A) in DCM was shaken overnight at 20 °C. Solid was removed by filtration and filtrate was evaporated to give a crude, which was purified by column chromatography on silica gel eluting with EtOAc-hexane (1:4 to 1:2) to afford 1-(2-chlorophenyl)-5-(4-{[3-(methylsulfonyl)phenyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole (88 mg). ¹H-NMR: CDCl₃: 7.68 (m, 1H), 7.55 (m, 2H), 7.48 (m, 1H), 7.62 - 7.40 (m, 2H), 7.27 (m, 2H), 7.21 (m, 1H), 6.93 (m, 1H), 6.80 (s, 1H), 3.04(s, 3H), MS(ES): 493 [M+H]⁺.

10

Scheme 25

15

As depicted in Scheme 25, aminosulfonyl groups can be introduced to the thiophene ring. Thiophene pyrazoles **025ES01** (Prepared in a manner similar to Example 2c) can be sulfonated by the action of chlorosulfonic acid to afford sulfonic acids **025ES02**. Conversion to the sulfonyl chlorides **025ES03** followed by derivatization with amines under basic conditions affords sulfonamides **0025ES04**.

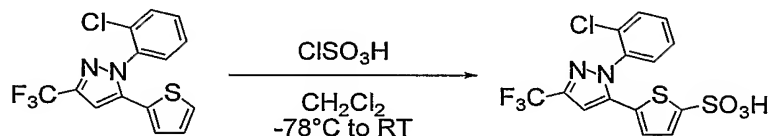
20

Example 69

1-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-ylsulfonyl)-4-methylpiperazine

Example 69a

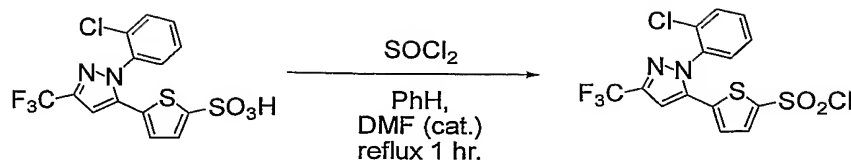
Preparation of 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonic acid



Chlorosulfonic acid (1.0mL, 15 mmol) was added dropwise to a cold (-78°C) solution of 1-(2-chlorophenyl)-5-(thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole (1.0g, 3.2 mmol) in CH₂Cl₂ (22mL). After 75 minutes stirring at -78°C the cooling bath was removed and the brown solution was allowed to warm to ambient temperature. After 3 ½ hours stirring at ambient temperature, the reaction mixture was poured onto ice and diluted with CH₂Cl₂. The milky lower organic phase was separated and dried over Na₂SO₄. Filtration and concentration under reduced pressure of the organics gave a biphasic mixture that was further pumped down under high vacuum. NMR and GC/MS analysis of this material showed it not to be the product. The aqueous phase from the workup was saturated with Na₂SO₄ and extracted with EtOAc (3x). These organic extract were dried over Na₂SO₄, filtered and concentrated under reduced pressure to afford 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonic acid as a yellow syrup. This crude material was carried on to the sulfonyl chloride formation without purification. MS(ES): 409[M+H]⁺.

Example 69b

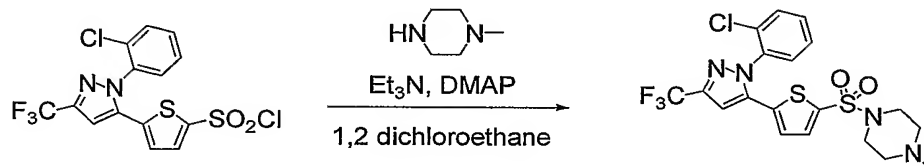
Preparation of 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonyl chloride



5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonic acid (~3.2 mmol from previous step) was combined with benzene (5.0 mL) in a reaction vial. This mixture was treated with thionyl chloride (5.0 mL, 69 mmol) and a catalytic amount of dimethylformamide (0.1 mL). The reaction was then heated to reflux in an oil bath. After refluxing for 1 hour the reaction mixture was concentrated under reduced pressure to afford a yellow oil that partially solidified under reduced pressure. This crude material was purified by flash column chromatography eluting with a gradient from 10% to 30% EtOAc/hexane. Product-containing fractions were collected and concentrated to afford 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonyl chloride as a pale yellow oil. The mostly pure material was carried on to subsequent transformations without further purification.

Example 69c

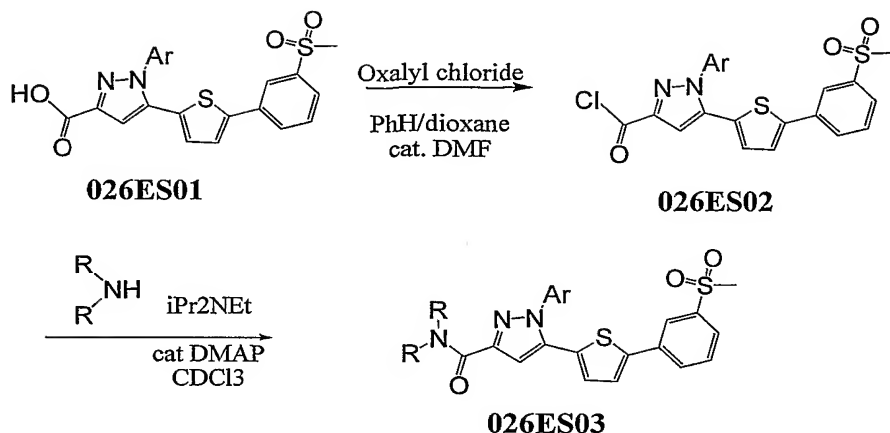
Preparation of 1-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-ylsulfonyl)-4-methylpiperazine



Triethylamine (0.15 mL, 1.1 mmol) and a small amount of DMAP were dissolved in 1,2-dichloroethane (2 mL) in a reaction vial. This solution was treated with 1-methyl piperazine (50 μ L, 0.45 mmol) followed by 5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophene-2-sulfonyl chloride (145 mg, 0.34 mmol) as a solution in 1,2-dichloroethane (1 mL). After stirring 4 $\frac{1}{2}$ hours at ambient temperature the reaction was quenched by dilution with CH_2Cl_2 and water. Saturated NaHCO_3 was added and the basic aqueous was extracted with CH_2Cl_2 (3x). The combined organic extracts were dried over Na_2SO_4 , filtered and concentrated under reduced pressure to afford crude product as a pale yellow oil. This crude product was purified by flash column chromatography eluting with a gradient from CH_2Cl_2 to 16% acetonitrile/ CH_2Cl_2 to afford 1-(5-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-ylsulfonyl)-4-methylpiperazine (90.5 mg, 54% yield) as a brittle white foam. MS(ES): 491[M+H]⁺.

The following compound is prepared essentially according to the previous examples:

- 1-({5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}sulfonyl)piperidine
MS(ES): 476[M+H]⁺.

Scheme 26

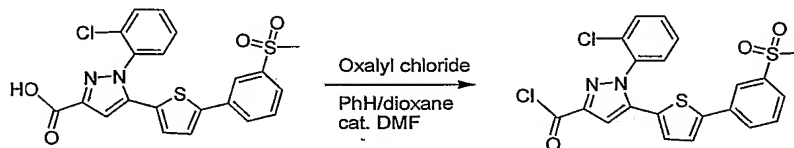
As depicted in Scheme 26, pyrazole-carboxylic acid can be transformed into pyrazole-amides. Carboxylic acid **0026ES01** (prepared in a manner similar to Example 2c) can be converted to its corresponding acid chloride **026ES02** by the action of oxalyl chloride. Reaction with various amines under basic conditions leads to the corresponding amides **026ES03**.

Example 70

Methyl 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperidine-4-carboxylate

Example 70a

Preparation of 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazole-3-carbonyl chloride

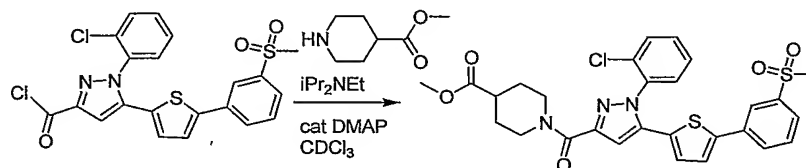


To a suspension of 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazole-3-carboxylic acid (160 mg, 0.35 mmol) in PhH (1.0 mL) was added a small amount of DMF. Oxalyl chloride (60 μ L, 0.69 mmol) was added to the suspension. After stirring for 15 minutes at ambient temperature, gas evolution had ceased and only part of the solids had dissolved. After 25 minutes dioxane (2.0 mL) was added. There was renewed gas evolution and most of the solids dissolved. After 30 minutes additional oxalyl chloride (50 μ L, 0.57 mmol) was added. There was vigorous gas evolution and after a total of 90 minutes stirring the reaction mixture was concentrated under reduced pressure to afford 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-

pyrazole-3-carbonyl chloride as a pale brown foam. This material was carried on to the subsequent acylation without purification.

Example 70b

Preparation of methyl 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperidine-4-carboxylate

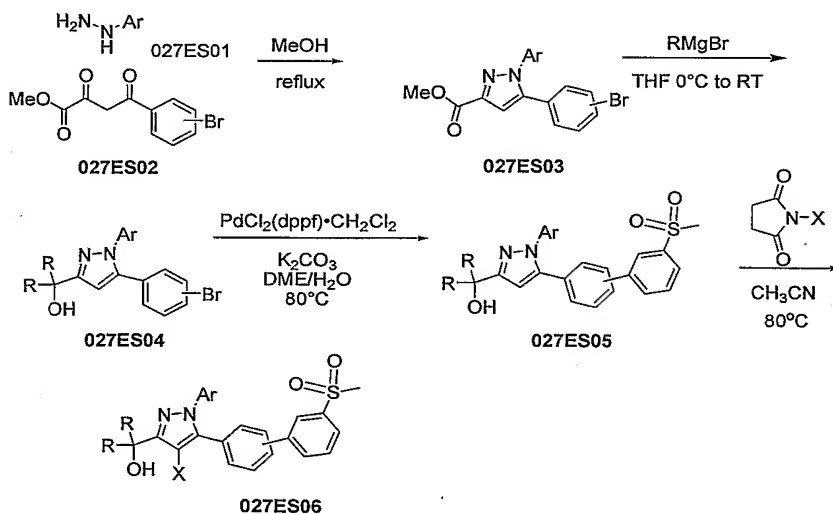


To a solution of 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carbonyl chloride (0.23 mmol crude from previous step) in CDCl_3 (1.2 ml) was added N,N-diisopropylethylamine (150 μL , 0.86 mmol) and a small amount of DMAP. The resulting mixture was treated with methyl isonipecotate (62 μL , 0.46 mmol). After stirring for 3 hours at ambient temperature the reaction was quenched by dilution with H_2O , and dilution with CH_2Cl_2 . The layers were separated and the basic aqueous layer was extracted with CH_2Cl_2 . The combined organic extracts were dried over Na_2SO_4 , filtered and concentrated under reduced pressure to afford crude product. This material was purified by flash column chromatography eluting with a gradient from 0% to 16% MeCN in CH_2Cl_2 to afford methyl 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperidine-4-carboxylate (11 mg, 8% yield) as a white powder. MS(ES): 584 $[\text{M}+\text{H}]^+$.

The following compounds are prepared essentially according to the previous examples:

- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-piperidin-1-yl-1H-pyrazole-3-carboxamide, MS(ES): 541.3 $[\text{M}+\text{H}]^+$.
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylcarbonyl)-1H-pyrazole, MS(ES): 512 $[\text{M}+\text{H}]^+$.
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-methylpiperidine, MS(ES): 540 $[\text{M}+\text{H}]^+$.
- 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-methylpiperazine, (ES): 541 $[\text{M}+\text{H}]^+$.
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[3-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxamide, MS(ES): 602 $[\text{M}+\text{H}]^+$.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide MS(ES): 604 $[\text{M}+\text{H}]^+$.

- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-(2,2,2-trifluoroethyl)-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazole-3-carboxamide MS(ES): 603 $[M+H]^+$.
- 4-chloro-5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-(2,2,2-trifluoroethyl)-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazole-3-carboxamide MS(ES): 637 $[M+H]^+$.
- 5 • 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-N-(2-hydroxy-1,1-dimethylethyl)-1H-pyrazole-3-carboxamide MS(ES): 592 $[M+H]^+$.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-N-(1,1-dimethylethyl)-1H-pyrazole-3-carboxamide MS(ES): 578 $[M+H]^+$.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-cyclopropyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide MS(ES): 560 $[M+H]^+$.
- 10 • 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-cyclobutyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide MS(ES): 576 $[M+H]^+$.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-cyclopentyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide MS(ES): 590 $[M+H]^+$.

Scheme 27

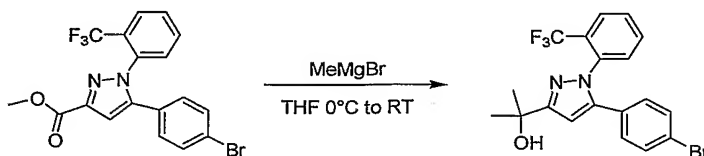
As depicted in Scheme 27, biphenylpyrazoles can be prepared starting from the condensation of a hydrazine with a diketo ester and can be chlorinated on the pyrazole ring. Hydrazines **027ES01** can be condensed with diketones **027ES02** as in Example 2c to afford pyrazoles **027ES03**. The ester functionality of **027ES03** can then be converted to a tertiary alcohol **027ES04** by the action of alkylmagnesium halides in a manner similar to Example 5. The resulting aryl bromide can then be coupled to a boronic acid under palladium catalyzed coupling conditions similar to those in Example 1c to afford biaryls **027ES05**. The pyrazole nucleus of **027ES05** can then be halogenated by treatment with NBS or NCS to afford the halo-pyrazoles **027ES06**.

Example 71

2-(5-(3'-(Methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol

Example 71a

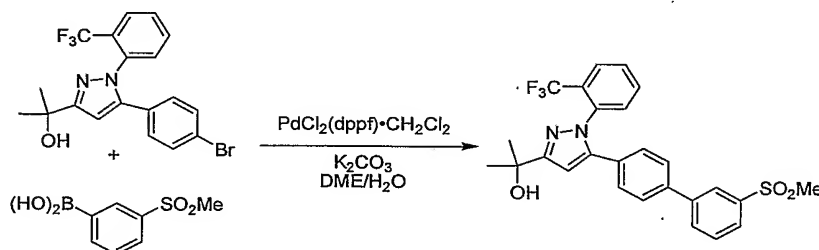
Preparation of 2-(5-(4-bromophenyl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol



To a suspension of methyl 5-(4-bromophenyl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazole-3-carboxylate (393 mg, 0.9 mmol) in dry toluene (9 mL) stirred at ambient temperature was added methylmagnesium bromide (1.4 mL of a 3.0M solution in ether, 4.2 mmol) dropwise. After 2 ¼ hours stirring at ambient temperature the reaction mixture was quenched by the addition of saturated ammonium chloride and EtOAc. The aqueous layer was extracted with EtOAc (3x). The combined organic extract were dried over Na₂SO₄, filtered and concentrated under reduced pressure to afford 2-(5-(4-bromophenyl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol as an orange-yellow oil, which was carried on to the subsequent step. GC/MS (EI, = 426 [M⁺])

Example 71b

Preparation of 2-(5-(3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol



To a solution of 2-(5-(4-bromophenyl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol (115 mg, 0.27 mmol) and 3-(methylsulfonyl)phenylboronic acid (66 mg, 0.33 mmol) in 1,2-dimethoxyethane (1.5 mL) was added K₂CO₃ (110 mg, 0.80 mmol) and H₂O (1.5 mL). The resulting biphasic suspension was stirred at ambient temperature and sparged with nitrogen for 10 minutes. The reaction was then treated with dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct (15 mg, 18 μmol) and heated to 80°C in an oil bath. The reaction was heated at 80°C for three hours and then allowed to cool to ambient temperature overnight. The cooled reaction mixture was diluted with EtOAc and H₂O. The aqueous layer was extracted with EtOAc (3x). The combined organic extracts were washed with brine, dried over Na₂SO₄, filtered and concentrated to afford crude product as a dark oil. The crude product was purified by flash-column chromatography eluting with a gradient from 10%

to 100% EtOAc/hexane to afford 2-(5-(3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol (122 mg, 90% yield) as an off-white powder. MS(ES): 501 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

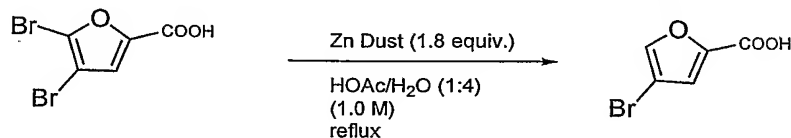
- 2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 502 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 467 [M+H]⁺.
- 4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-N-(1-methylethyl)biphenyl-3-carboxamide, MS(ES): 474 [M+H]⁺.
- 4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]biphenyl-3-carboxamide, MS(ES): 503 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[4'-(ethylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 481 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 481 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 485 [M+H]⁺.
- 2-{5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol MS(ES): 501 [M+H]⁺.
- 1-(5-{4-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]phenyl}-2-thienyl)ethanone MS(ES): 419 (M-OH)
- 5-{4-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]phenyl}thiophene-2-carbaldehyde, MS(ES): 405 (M-OH)
- 2-[1-(2-chlorophenyl)-5-{4-[2-(methyloxy)pyrimidin-5-yl]phenyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 421 [M+H]⁺

Example 72

2-[1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]furan-2-yl}-1H-pyrazol-3-yl]propan-2-ol

Example 72a

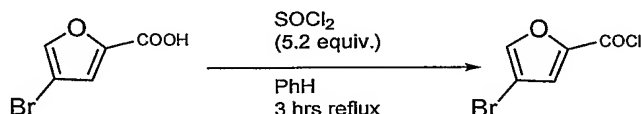
Preparation of 4-bromo-furan-2-carboxylic acid



A 500 mL three-necked round-bottom flask fitted with an overhead mechanical stirrer and reflux condenser was charged with 4,5-dibromo-furan-2-carboxylic acid (57.0 g, 211 mmol), H₂O (168 mL), and HOAc (42 mL). The third neck of the flask was stoppered and the suspension was heated to reflux with a temperature controlled heating mantle held at 125-130 °C. Zn dust (24.9 g, 381 mmol) (previously ground in a mortar and pestle to break up lumps) was added portionwise over 50 minutes. Subsequent portions are added after most of the previously added portion has disappeared. After the first portions of the Zn were added, all of the 4,5-dibromofuran-2-carboxylic acid dissolves to give a pale brown solution. Twenty-five minutes after the conclusion of the zinc addition a thick grey-white slurry had formed. HPLC analysis of the reaction slurry at this time indicated complete consumption of the starting 4,5-dibromofuran-2-carboxylic acid and conversion to the desired product. After 35 minutes, heating was discontinued, and the slurry was allowed to cool to ambient temperature. After cooling to ambient temperature the reaction slurry was diluted with cold H₂O (175 mL), cooled in an ice bath, and then filtered. The white and grey solids were rinsed with cold H₂O, and dried on the filter for 3 hours. The product/Zn mixture was then pumped down under high vacuum with gentle heating to afford white-grey flakes. A portion of the resulting solids (37.3 g) was dissolved in warm acetone (1.8L, solubility about 20g/L). The resulting solution was filtered to remove residual zinc dust, and then concentrated under reduced pressure to afford 4-bromo-furan-2-carboxylic acid as a white powder. This material was carried on to the acid chloride formation without purification. ¹H-NMR (400MHz, DMSO-d₆): δ 7.96 (1H, d, J = 0.8 Hz), 7.04 (1H, d, J = 0.8 Hz).

Example 72b

Preparation of 4-bromofuran-2-carbonyl chloride

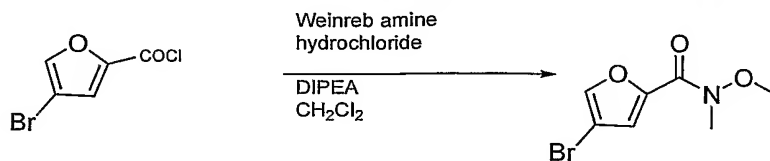


The crude 4-bromo-furan-2-carboxylic acid (30 g, 157 mmol) was placed in a 500 mL round bottom flask equipped with a magnetic stirring bar and a reflux condenser, and the flask was alternately evacuated and filled with nitrogen several times. The solids were suspended in benzene (400 mL), treated with SOCl₂ (60 mL, 823 mmol) and the mixture was heated to reflux in a heating mantle. Dark tarry materials form on the walls of the reaction flask during the course of the reaction. After ~135 minutes at reflux a sample of the reaction was concentrated under reduced pressure and analyzed by ¹³C NMR. The NMR was quite clean and showed the reaction to be complete. [¹³C-NMR (400MHz, CDCl₃): δ 154.9, 147.6, 146.3, 126.0, 102.5] After ~3 hours at reflux the reaction mixture was allowed to cool to ambient temperature. The pale brown supernatant solution of the acid chloride was decanted from the dark solids, and the solids were rinsed with additional benzene. The benzene solutions were

combined and concentrated under reduced pressure to afford 4-bromofuran-2-carbonyl chloride as a pale brown oil. This crude material was carried on to the amide formation without purification.

Example 72c

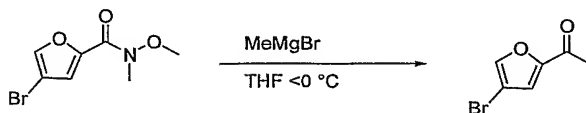
Preparation of 4-bromo-furan-2-carboxylic acid methoxy-methyl-amide



The crude 4-bromofuran-2-carbonyl chloride (157 mmol theoretical) was dissolved in CH_2Cl_2 (500 mL) in a 1 L round bottomed flask. The flask was immersed in an ice bath and N,O-dimethylhydroxylamine hydrochloride (19.5 g, 200 mmol) was added. The cold suspension was then treated with N,N-diisopropylethylamine (75 mL, 430 mmol), and a small amount of 4-(N,N-dimethylamino)pyridine (catalytic). Several minutes after the addition of the 4-(N,N-dimethylamino)pyridine the ice bath was removed and the pale orange solution was allowed to warm to ambient temperature. After standing at ambient temperature for ~ 16 hours the pale brown reaction mixture was quenched with water (100 mL) and diluted with CH_2Cl_2 (500 mL). The layers were separated and the organic layer was washed with 1N HCl (2 x 100 mL), H_2O (100 mL), and saturated NaHCO_3 (50 mL). The organics were dried over Na_2SO_4 , filtered, and concentrated under reduced pressure to afford 4-bromo-furan-2-carboxylic acid methoxy-methyl-amide (25.7 g, 70% yield from crude acid) as a pale brown solid. ^1H -NMR (400MHz, CDCl_3): δ 7.60 (1H, d, $J = 0.8$ Hz), 7.14 (1H, d, $J = 0.8$ Hz), 3.77 (3H, s), 3.35 (3H, s).

Example 72d

Preparation of 1-(4-bromo-furan-2-yl)-ethanone



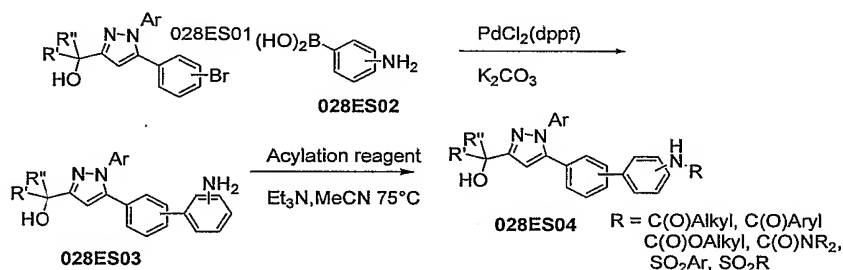
A solution of 4-bromo-furan-2-carboxylic acid methoxy-methyl-amide (27.5 g, 117 mmol) in THF (350 mL) was prepared and cooled in an ice-salt bath ($< 0^\circ\text{C}$) to this solution was added methylmagnesium bromide (51 mL of a 3.0 M solution in Et_2O , 153 mmol) slowly so as to maintain the temperature below 0°C . The resulting off-white / brown suspension was stirred at $\sim -10^\circ\text{C}$. TLC analysis of an NH_4Cl -quenched aliquot after 1 hour showed no starting amide present. After 75 minutes at -10°C the reaction was quenched by the addition of saturated aqueous NH_4Cl (100 mL). Additional H_2O was added followed by 3N aqueous HCl (~ 40 mL) to dissolve the solids. The resulting biphasic solution was concentrated on the rotary evaporator to remove most of the THF. The resulting aqueous

slurry was diluted with Et₂O, and 3N aqueous HCl was added to bring the pH < 7. The layers were separated and the aqueous layer was extracted with Et₂O (3 x 100 mL). The combined organic layers were washed with saturated aqueous NaHCO₃, brine, dried over Na₂SO₄, filtered and concentrated under reduced pressure to afford 1-(4-bromo-furan-2-yl)-ethanone (20.4 g, 92% yield) as a pale brown solid. ¹H-NMR (400MHz, CDCl₃): δ 7.58 (1H, d, J = 0.8 Hz), 7.18 (1H, d, J = 0.8 Hz), 2.47 (3H, s).

The following compounds are prepared essentially according to the previous examples:

- methyl 1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]furan-2-yl}-1H-pyrazole-3-carboxylate, MS(ES): 457[M+H]⁺.
- 2-[1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]furan-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 457 [M+H]⁺.
- 2-[1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 473 [M+H]⁺

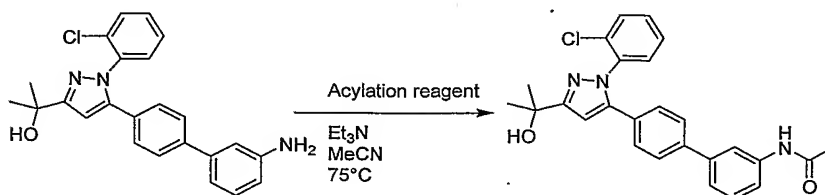
Scheme 28



As depicted in Scheme 28, amides and sulfonamides can be prepared via acylation of a free amino groups. Carbinols **028ES01** (prepared in a manner similar to Example 5) can be coupled under palladium-catalyzed coupling conditions similar to Example 1c with aminophenyl boronic acids to afford amino biaryls **028ES03**. The amine functionality of these can then be further derivatized under basic conditions to afford acylated or sulfonylated derivatives **028ES04**.

Example 73

Preparation of N-(4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-3-yl)acetamide



To a solution of 2-(5-(3'-(2-chlorophenyl)-1-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-3-yl)aniline (370 mg, 0.37 mmol) in acetonitrile (1.6 mL) was added triethylamine (0.12 mL, 0.86 mmol) followed by

acetyl chloride (27 μ L, 380 μ mol). The reaction vial was then shaken at 75°C overnight. After cooling the reaction solution was concentrated under reduced pressure and the crude product was purified by flash column chromatography eluting with a gradient from 0% to 100% EtOAc/hexane to afford N-(4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-3-yl)acetamide (82 mg, 49% yield) as an oil. ^1H NMR (400 MHz CDCl_3): δ 7.79 (1H, s), 7.49-7.42 (4H, m), 7.41-7.32 (4H, m), 7.31-7.21 (3H, m), 6.54 (1H, s), 2.68 (1H, s), 2.19 (3H, s), 1.69 (6H, s). MS(ES): 445[M+H] $^+$. The following compounds are prepared essentially according to the previous examples:

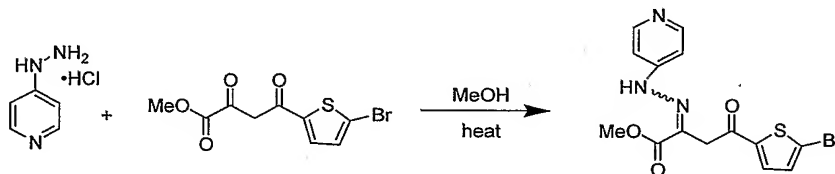
- N-{4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}methanesulfonamide MS(ES): 482[M+H] $^+$.
- N-{4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}-1,1,1-trifluoromethanesulfonamide MS(ES): 535 [M+H] $^+$.

Example 74

2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazol-3-yl)propan-2-ol

Example 74a

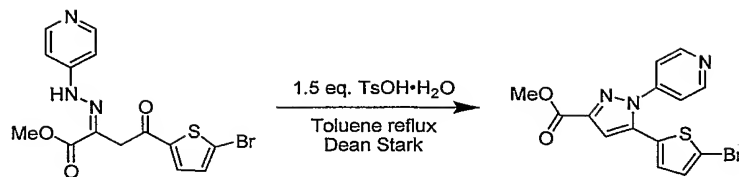
Preparation of methyl 4-(5-bromothiophen-2-yl)-4-oxo-2-(2-(pyridin-4-yl)hydrazono)butanoate



4-Hydrazinopyridine hydrochloride (366 mg, 2.51 mmol) and methyl 4-(5-bromothiophen-2-yl)-2,4-dioxobutanoate (724 mg, 2.5 mmol) were suspended in MeOH (12 mL) and heated to reflux to afford a yellow solution. After refluxing for 24 hours the reaction was allowed to cool to ambient temperature and was concentrated under reduced pressure to afford an orange oil. LC/MS analysis showed it to be a mixture of two isomers of the hydrazone with a small amount of cyclized pyrazole present. This material was carried on the dehydrative cyclization to prepare the cyclized pyrazole. MS(ES): 384[M+H] $^+$.

Example 74b

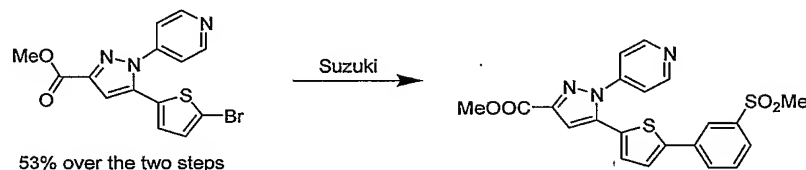
Preparation of methyl 5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazole-3-carboxylate



The crude (E-Z)-methyl 4-(5-bromothiophen-2-yl)-4-oxo-2-(2-(pyridin-4-yl)hydrazono)-butanoate (2.5 mmol from previous step) was suspended in toluene (40 mL), treated with p-toluenesulfonic acid monohydrate (735 mg, 3.9 mmol) and heated to reflux under a Dean-Stark water separator overnight. LC/MS analysis at this time showed two regioisomers of the cyclized pyrazole product. The reaction was cooled and diluted with EtOAc, H₂O, and basified by careful addition of solid Na₂CO₃. The basic aqueous was extracted with EtOAc (3x), and the combined organic extracts were washed with water, brine, dried over Na₂SO₄, filtered and concentrated under reduced pressure to afford an orange film. This material was purified by flash column chromatography eluting with a gradient from 0% to 100% EtOAc/hexane to afford a mixture of two isomeric pyrazoles. This mixture was carried on to the Suzuki coupling with no further purification.

Example 74c

Preparation of methyl 5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazole-3-carboxylate



A mixture of methyl 5-(5-bromothiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazole-3-carboxylate (480 mg, 1.3 mmol) and 3-(methylsulfonyl)phenylboronic acid (390 mg, 1.9 mmol) was suspended in THF (6 mL) with Na₂CO₃ (1.0 mL of a 2M aqueous solution, 2.0 mmol). The mixture was sparged with nitrogen for ~ 10 minutes, treated with Pd(PPh₃)₄ (54 mg, 47 μmol), and heated to 65°C. After 4 hours at 65°C there was still starting methyl 5-(5-bromothiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazole-3-carboxylate visible as evidenced by LC/MS. Additional palladium catalyst was added and heating was continued. After heating at 65°C overnight the reaction mixture was concentrated under reduced pressure to afford a dark semi-solid that was triturated with EtOAc and filtered to remove the solids. The filtrate was concentrated under reduced pressure and purified by flash column chromatography eluting with a gradient from 0% to 50% MeCN/CH₂Cl₂ to afford methyl 5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(pyridin-4-yl)-1H-pyrazole-3-carboxylate (137 mg, 24% yield) as a mixture with triphenylphosphine oxide. This colorless film will be carried on to the Grignard addition without further purification.

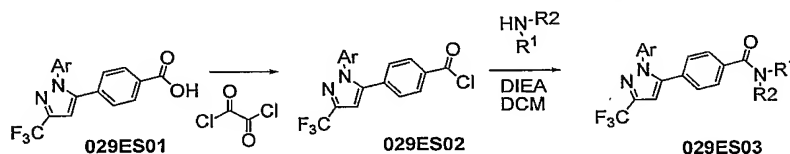
The following compounds are prepared essentially according to Example 8:

- 2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-pyridin-4-yl-1H-pyrazol-3-yl)propan-2-ol, ¹H NMR (400 MHz CDCl₃): δ 8.68-8.57 (2H, m), 8.14 (1H, m), 7.92-7.78 (2H, m), 7.61 (1H, t), 7.43-7.36 (2H, m), 7.34 (1H, d), 6.93 (1H, d), 6.60 (1H, s), 3.11 (3H, s), 2.75 (1H, s), 1.67 (6H, s). MS(ES): 440 [M+H]⁺.
- 2-[1-(4-methylpyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 454 [M+H]⁺.
- 2-[1-(2,6-dimethylpyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 468 [M+H]⁺.
- 10 • 2-[1-(2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 453 [M+H]⁺.
- 2-[1-(2,5-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 467 [M+H]⁺.
- 2-[1-(2,3-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 467 [M+H]⁺.
- 15 • 2-[1-[2-fluoro-3-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 525 [M+H]⁺.
- 2-[1-(2-chloro-5-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 491 [M+H]⁺.
- 20 • 2-[1-(2-chloro-6-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 487 [M+H]⁺.
- 2-[1-(5-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 491 [M+H]⁺.
- 2-[1-(2-chloro-6-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 491 [M+H]⁺.
- 25 • 2-{1-(2,6-dichlorophenyl)-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 515 [M+H]⁺.
- 2-{1-(2,6-dichlorophenyl)-5-[2-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 537 [M+Na]⁺.
- 30 • 2-{5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol, 516 [M+H]⁺.
- 2-{5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 516 [M+H]⁺.

- 2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 502 [M+H]⁺.
- 2-{5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 536 [M+H]⁺.
- 5 • 2-{1-(2,6-dichlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 501 [M+H]⁺.
- 2-{5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl}propan-2-ol MS(ES): 537 [M+H]⁺.
- 2-{5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 536 [M+H]⁺.
- 10 • 2-{3'-chloro-4'-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}propan-2-ol MS(ES): 525 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[4-(1H-indol-6-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 450 [M+Na]⁺.
- 15 • 2-{1-(2-chlorophenyl)-5-[4-(1H-indol-5-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 428 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[4-(1-methyl-1H-indol-5-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 442 [M+H]⁺.
- 2-{1-(2-chlorophenyl)-5-[4-(1H-indol-4-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 450 [M+Na]⁺.
- 20 • 2-(1-(2-chlorophenyl)-5-(3'-(trifluoromethyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 457[M+H]⁺.
- 2-(5-(2'-chloro-4'-(trifluoromethyl)biphenyl-4-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 491[M+H]⁺.
- 25 • 2-(1-(2-chlorophenyl)-5-(4'-fluoro-3'-(trifluoromethyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 475[M+H]⁺.
- 4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-3-sulfonamide. MS (ES): 468[M+H]⁺.
- 2-(1-(2-chlorophenyl)-5-(4'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. (ES): 467[M+H]⁺.
- 30 • 4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-4-sulfonamide. MS (ES): 468[M+H]⁺.

- 2-(4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)biphenyl-3-yl)propan-2-ol. MS (ES): 447[M+H]⁺.
- 4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-N-(2-(dimethylamino)ethyl)biphenyl-3-sulfonamide. MS (ES): 539[M+H]⁺.

5

Scheme 29

As depicted in Scheme 29, carboxylic acids can be transformed into amides via acylation.

Carboxylic acids **029ES01** (Made in a manner similar to Example 2c) can be converted to their corresponding acid chlorides, **029ES02**, by the action of oxalyl chloride in a manner similar to Example 70a. The resulting acid chloride can then be reacted with various amines under basic conditions similar to Example 70b to afford the corresponding amides **029ES03**.

10

Example 75

4-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-N,N-dimethyl-benzamide

15

Example 75a

Preparation of 4-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-benzoyl chloride

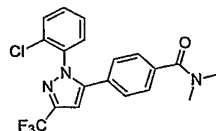
4-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-benzoic acid was prepared in a similar manner as described previously. To a 500ml round bottom flask was added 2g of the acid, ~150ml of dry THF, 300μL of DMF and 1500μL of oxalyl chloride. The reaction was stirred at room temperature for 30 minutes. The solvent was removed under reduced pressure and the resulting yellow solid was dissolved in dichloromethane and dried under reduced pressure two more times. The resulting yellow solid was then dissolved to 0.1M in dry dichloromethane and used without further purification.

20

Example 75b

Preparation of 4-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-N,N-dimethyl-benzamide

25



In a 1 dram vial was added 4-[2-(2-Chloro-phenyl)-5-trifluoromethyl-2H-pyrazol-3-yl]-benzoyl chloride (300 mL, 0.3 mmol) as a 0.1M solution in Dichloromethane, Dimethyl-amine (27 mg, 0.6 mmol) and N,N-Diisopropylethylamine (77.4mg, 0.6mmol). The reaction was stirred at room

temperature for 30min and then placed directly on silica and purified using a gradient of Hexane to Ethyl Acetate 0-50% over 10 CV. The relevant fractions were combined and dried in *vacuo* to give 108.6mg (92%) of an off white solid; MS (ES): 394 [M+H]⁺; ¹H NMR (400 MHz, DMSO-*d*₆): δ 7.84 (dd, *J* = 7.8Hz; 1.7 Hz 1H), 7.73-7.58 (m, 3H), 7.45-7.35 (m, 5H), 3.00 (s, 3H), 2.89 (s, 3H).

5 The following compounds were synthesized in a similar manner:

- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-morpholin-4-ylethyl)benzamide, MS(ES): 479 [M+H]⁺.
- methyl N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)glycinate, MS(ES): 438 [M+H]⁺.
- 10 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-oxotetrahydro-3-thienyl)benzamide, MS(ES): 466 [M+H]⁺.
- methyl N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-beta-alaninate, MS(ES): 452 [M+H]⁺.
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-
- 15 (methylsulfonyl)ethyl]benzamide, MS(ES): 472 [M+H]⁺.
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(methylsulfonyl)ethyl]piperazine, MS(ES): 541 [M+H]⁺.
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1,1-dioxidotetrahydro-3-thienyl)benzamide, MS(ES): 484 [M+H]⁺.
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(methylsulfonyl)phenyl]benzamide, MS(ES): 520 [M+H]⁺.
- 4-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-N,N-dimethylbenzamide, MS(ES): 384 [M+H]⁺.
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-3-yl-1H-pyrazole-3-
- 25 carboxamide; MS (ES): 535 [M+H]⁺
- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-4-yl-1H-pyrazole-3-carboxamide; MS (ES): 535 [M+H]⁺
- 1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 529 [M+H]⁺;
- 30 • 1-(2-chlorophenyl)-N-[3-(methoxy)propyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 530 [M+H]⁺;
- 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}morpholine; MS (ES): 528 [M+H]⁺;

- 1-(2-chlorophenyl)-N-[6-(methyloxy)pyridin-3-yl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 565 [M+H]⁺;
- 1-(2-chlorophenyl)-N,N-dimethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 486 [M+H]⁺;
- 5 • 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-cyclopentylpiperazine; MS (ES): 595 [M+H]⁺;
- 1-(2-chlorophenyl)-N-methyl-N-(1-methylpiperidin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 569 [M+H]⁺;
- 1-(2-chlorophenyl)-N-[3-(dimethylamino)propyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 557 [M+H]⁺;
- 10 • 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(3-pyrrolidin-1-ylpropyl)-1H-pyrazole-3-carboxamide; MS (ES): 569 [M+H]⁺;
- 1-(2-chlorophenyl)-N-[(1-ethylpyrrolidin-3-yl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide; MS (ES): 569 [M+H]⁺;
- 15 • N-(5-chloro-2-hydroxyphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 492 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-6-ylbenzamide; MS (ES): 493 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3-dihydro-1,4-benzodioxin-6-yl)benzamide; MS (ES): 500 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]phenyl}benzamide; MS (ES): 608 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyanophenyl)benzamide; MS (ES): 467 [M+H]⁺;
- 25 • 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]-5-methylbenzoic acid; MS (ES): 500 [M+H]⁺;
- 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid; MS (ES): 486 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(ethyloxy)phenyl]benzamide; MS (ES): 486 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-cyanophenyl)benzamide; MS (ES): 467 [M+H]⁺;

- 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]pyridine-3-carboxylic acid; MS (ES): 487 [M+H]⁺;
- N-[4-(aminocarbonyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 485 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-5-ylbenzamide; MS (ES): 493 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-piperidin-1-ylphenyl)benzamide; MS (ES): 525 [M+H]⁺;
- N-(5-chloro-2-morpholin-4-ylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 561 [M+H]⁺;
- 10 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-isoxazol-3-ylbenzamide; MS (ES): 433 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]benzamide; MS (ES): 506 [M+H]⁺;
- 15 • 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]-4-methylbenzoic acid; MS (ES): 500 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1H-indazol-5-ylbenzamide; MS (ES): 482 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(1-methylethyl)oxy]phenyl}benzamide; MS (ES): 500 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-methyl-1,3-thiazol-2-yl)benzamide; MS (ES): 463 [M+H]⁺;
- N-(2-chloro-3-hydroxy-4-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 506 [M+H]⁺;
- 25 • {4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]phenyl}acetic acid; MS (ES): 500 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(furan-2-ylmethyl)-N-methylbenzamide; MS (ES): 460 [M+H]⁺;
- 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]-2,6-dimethylmorpholine; MS (ES): 464 [M+H]⁺;
- 30 • 1-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]-4-(ethylsulfonyl)piperazine; MS (ES): 527 [M+H]⁺;

- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,4-diazepane; MS (ES): 449 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(pyridin-4-ylmethyl)benzamide; MS (ES): 471 [M+H]⁺;
- 5 • 4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)thiomorpholine; MS (ES): 452 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-3-ol; MS (ES): 450 [M+H]⁺;
- [1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-2-yl]methanol; MS (ES): 450 [M+H]⁺;
- 10 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-ol; MS (ES): 450 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-methyl-1,4-diazepane; MS (ES): 463 [M+H]⁺;
- 15 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(trifluoromethyl)phenyl]piperazine; MS (ES): 579 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]-N-methylbenzamide; MS (ES): 451 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(2-thienylmethyl)benzamide; MS (ES): 476 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-piperidin-1-ylphenyl)benzamide; MS (ES): 525 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-4-carboxylic acid; MS (ES): 478 [M+H]⁺;
- 25 • 4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)morpholine; MS (ES): 436 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1,3,4-thiadiazol-2-ylbenzamide; MS (ES): 450 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-hydroxy-3-methylphenyl)benzamide; MS (ES): 472 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(5-methyl-3-oxo-2,3-dihydro-1H-pyrazol-1-yl)phenyl]benzamide; MS (ES): 538 [M+H]⁺;

- 2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]benzonitrile; MS (ES): 536 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-pyridin-4-ylpiperazine; MS (ES): 512 [M+H]⁺;
- 5 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(methyloxy)phenyl]piperazine; MS (ES): 541 [M+H]⁺;
- 2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]phenol; MS (ES): 527 [M+H]⁺;
- 4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-2-one; MS (ES): 449 [M+H]⁺;
- 10 • 3-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4,4-dimethyl-1,3-oxazolidine; MS (ES): 450 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(tetrahydrofuran-2-ylmethyl)piperazine; MS (ES): 519 [M+H]⁺;
- 15 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-propanoylpiperazine; MS (ES): 491 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-methylpiperazine; MS (ES): 449 [M+H]⁺;
- 1,1-dimethylethyl [1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-3-yl]carbamate; MS (ES): 535 [M+H]⁺;
- 20 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)azetidine-3-carboxylic acid; MS (ES): 450 [M+H]⁺;
- 4-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]phenol; MS (ES): 527 [M+H]⁺;
- 25 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methyloxy)ethyl]-N-(1-methylpiperidin-4-yl)benzamide; MS (ES): 521 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-methylpyrrolidin-3-yl)benzamide; MS (ES): 463 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,2,5,6-tetrahydropyridine-3-carboxylic acid; MS (ES): 476 [M+H]⁺;
- 30 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(1-methylpropyl)piperazine; MS (ES): 491 [M+H]⁺;

- 3-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-yl]-1H-indole; MS (ES): 549 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropyl-N-(1-methylpiperidin-4-yl)benzamide; MS (ES): 503 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]-N-ethylbenzamide; MS (ES): 465 [M+H]⁺;
- 2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]pyrazine; MS (ES): 513 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1,3-dioxolan-2-ylmethyl)-N-methylbenzamide; MS (ES): 466 [M+H]⁺;
- 10 • N-(1-acetylpiperidin-4-yl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropylbenzamide; MS (ES): 531 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(6-methylpyridin-2-yl)piperazine; MS (ES): 526 [M+H]⁺;
- 15 • ethyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-2-carboxylate; MS (ES): 506 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(3-methylphenyl)piperazine; MS (ES): 525 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropyl-N-(1-propylpiperidin-4-yl)benzamide; MS (ES): 531 [M+H]⁺;
- 20 • ethyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-4-carboxylate; MS (ES): 506 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(trifluoromethyl)pyrimidin-2-yl]-1,4-diazepane; MS (ES): 595 [M+H]⁺;
- 25 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(pyridin-3-ylmethyl)benzamide; MS (ES): 471 [M+H]⁺;
- N-butyl-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-thienylmethyl)benzamide; MS (ES): 518 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-ethylpiperazine; MS (ES): 463 [M+H]⁺;
- 30 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[3-(methyloxy)phenyl]piperazine; MS (ES): 541 [M+H]⁺;

- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-methylpiperidin-4-yl)benzamide; MS (ES): 477 [M+H]⁺;
- N-(2-amino-2-oxoethyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methylbenzamide; MS (ES): 437 [M+H]⁺;
- 5 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(furan-2-ylcarbonyl)piperazine; MS (ES): 529 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(2-fluorophenyl)piperazine; MS (ES): 529 [M+H]⁺;
- 10 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(methyloxy)phenyl]piperazine; MS (ES): 541 [M+H]⁺;
- 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(thienyl)ethyl]piperazine; MS (ES): 545 [M+H]⁺;
- 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)amino]benzoic acid; MS (ES): 486 [M+H]⁺;
- 15 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(piperidin-1-ylsulfonyl)phenyl]benzamide; MS (ES): 589 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1,3-thiazol-2-ylbenzamide; MS (ES): 449 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(pyrrolidin-1-ylsulfonyl)phenyl]benzamide; MS (ES): 575 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-4-(methyloxy)phenyl]benzamide; MS (ES): 486 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(difluoromethyl)oxy]phenyl}benzamide; MS (ES): 508 [M+H]⁺;
- 25 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(difluoromethyl)oxy]phenyl}benzamide; MS (ES): 508 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-fluorophenyl)benzamide; MS (ES): 460 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(morpholin-4-ylsulfonyl)phenyl]benzamide; MS (ES): 591 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(trifluoromethyl)phenyl]benzamide; MS (ES): 510 [M+H]⁺;

- N-(3-chlorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide;
MS (ES): 476 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(methylsulfonyl)pyridin-3-yl]benzamide; MS (ES): 521 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(trifluoromethyl)phenyl]benzamide; MS (ES): 510 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methyloxy)phenyl]benzamide; MS (ES): 472 [M+H]⁺;
- 10 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-fluoro-5-(trifluoromethyl)phenyl]benzamide; MS (ES): 528 [M+H]⁺;
- N-(2-chlorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide;
MS (ES): 476 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(methyloxy)phenyl]benzamide; MS (ES): 472 [M+H]⁺;
- 15 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(trifluoromethyl)phenyl]benzamide; MS (ES): 510 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(trifluoromethyl)oxy]phenyl}benzamide; MS (ES): 526 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(pyridin-4-ylcarbonyl)phenyl]benzamide; MS (ES): 547 [M+H]⁺;
- 20 • N-[3,5-bis(methyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 502 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-pyridin-3-ylbenzamide; MS
(ES): 443 [M+H]⁺;
- 25 • N-(2-chloro-5-hydroxyphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 492 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-pyridin-4-ylbenzamide; MS
(ES): 443 [M+H]⁺;
- N-1,3-benzodioxol-5-yl-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide;
30 MS (ES): 486 [M+H]⁺;
- 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid; MS (ES): 486 [M+H]⁺;

- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-6-(methoxy)phenyl]benzamide; MS (ES): 486 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-methylpyridin-2-yl)benzamide; MS (ES): 457 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(trifluoromethyl)oxy]phenyl}benzamide; MS (ES): 526 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyclopropyl-1H-pyrazol-5-yl)benzamide; MS (ES): 472 [M+H]⁺;
- N-[3,4-bis(methoxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 502 [M+H]⁺;
- 10 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-8-ylbenzamide; MS (ES): 493 [M+H]⁺;
- 4-chloro-3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid; MS (ES): 520 [M+H]⁺;
- 15 • 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)azetidine-2-carboxylic acid; MS (ES): 450 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{3-[(trifluoromethyl)oxy]phenyl}benzamide; MS (ES): 526 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(trifluoromethyl)thio]phenyl}benzamide; MS (ES): 542 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(methoxy)pyridin-3-yl]benzamide; MS (ES): 473 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-methylpyridin-2-yl)benzamide; MS (ES): 457 [M+H]⁺;
- 25 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-5-(methoxy)phenyl]benzamide; MS (ES): 486 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1-methyl-1H-pyrazol-5-yl)benzamide; MS (ES): 446 [M+H]⁺;
- N-[5-(acetylamino)-2-chlorophenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 533 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]benzamide; MS (ES): 518 [M+H]⁺;

- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-chloro-2-(trifluoromethyl)phenyl]benzamide; MS (ES): 544 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methylpyridin-2-yl)benzamide; MS (ES): 457 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methyloxy)-5-(trifluoromethyl)phenyl]benzamide; MS (ES): 540 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(6-methylpyridin-2-yl)benzamide; MS (ES): 457 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(methyloxy)biphenyl-3-yl]benzamide; MS (ES): 548 [M+H]⁺;
- 10 • N-(3-chloro-4-fluorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 494 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{6-[(trifluoromethyl)oxy]-1,3-benzothiazol-2-yl}benzamide; MS (ES): 583 [M+H]⁺;
- 15 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-fluoro-3-(trifluoromethyl)phenyl]benzamide; MS (ES): 528 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(1H-pyrrol-1-yl)phenyl]benzamide; MS (ES): 507 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-chloro-5-(trifluoromethyl)phenyl]benzamide; MS (ES): 544 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1-methyl-1H-pyrazol-3-yl)benzamide; MS (ES): 446 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylethyl)-2-(methyloxy)phenyl]benzamide; MS (ES): 528 [M+H]⁺;
- 25 • N-[5-chloro-2-(methyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 506 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methyl-1,3,4-thiadiazol-2-yl)benzamide; MS (ES): 464 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,6-dichlorophenyl)benzamide; MS (ES): 510 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-hydroxyphenyl)benzamide; MS (ES): 458 [M+H]⁺;

- 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-6-(methoxy)benzoic acid; MS (ES): 516 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methylisoxazol-3-yl)benzamide; MS (ES): 447 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-fluoro-4-(methoxy)phenyl]benzamide; MS (ES): 490 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(dimethylamino)phenyl]benzamide; MS (ES): 485 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(furan-2-ylmethyl)benzamide; MS (ES): 446 [M+H]⁺;
- 10 • ethyl 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]piperidine-1-carboxylate; MS (ES): 521 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(tetrahydrofuran-2-ylmethyl)benzamide; MS (ES): 450 [M+H]⁺;
- 15 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-thienylmethyl)benzamide; MS (ES): 462 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]benzamide; MS (ES): 437 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(dimethylamino)-2,2-dimethylpropyl]benzamide; MS (ES): 479 [M+H]⁺;
- 20 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-pyrrolidin-1-ylethyl)benzamide; MS (ES): 463 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{3-[(1-methylethyl)oxy]propyl}benzamide; MS (ES): 466 [M+H]⁺;
- 25 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-(methoxy)phenyl}methylbenzamide; MS (ES): 486 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-morpholin-4-ylpropyl)benzamide; MS (ES): 493 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(2-thienyl)ethyl]benzamide; MS (ES): 476 [M+H]⁺;
- 30 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(pyridin-4-ylmethyl)benzamide; MS (ES): 457 [M+H]⁺;

- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[3-(methyloxy)phenyl]ethyl}benzamide; MS (ES): 500 [M+H]⁺;
- N-{[3,4-bis(methyloxy)phenyl]methyl}-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide; MS (ES): 516 [M+H]⁺;
- 5 • 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[4-(methyloxy)phenyl]ethyl}benzamide; MS (ES): 500 [M+H]⁺;
- 2-piperidin-1-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 478 [M+H]⁺.
- 2-(dimethylamino)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 438 [M+H]⁺.
- 10 • 2-piperidin-1-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 478 [M+H]⁺.
- 2-morpholin-4-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 480 [M+H]⁺.
- 15 • 3-(dimethylamino)propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 452 [M+H]⁺.
- 2-(methylsulfonyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 473 [M+H]⁺.
- 2-(4-methylpiperazin-1-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 493 [M+H]⁺.
- 20 • 3-(methylsulfonyl)propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate, MS(ES): 487 [M+H]⁺.
- 2-(dimethylamino)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 438 [M+H]⁺;
- 25 • 2-pyridin-2-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 472 [M+H]⁺;
- [3,5-dimethyl-4-(methyloxy)pyridin-2-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 516 [M+H]⁺;
- 2-(propylthio)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 469 [M+H]⁺;
- 30 • furan-3-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 447 [M+H]⁺;

- (2,4-difluorophenyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 493 [M+H]⁺;
- furan-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 447 [M+H]⁺;
- 5 • 2-(2-methylphenyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 485 [M+H]⁺;
- 2-[3-(trifluoromethyl)phenyl]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 539 [M+H]⁺;
- 3-(methylthio)propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 455 [M+H]⁺;
- 10 • 2-oxo-2-phenylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 485 [M+H]⁺;
- pyridin-3-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 458 [M+H]⁺;
- 15 • 2-(phenylsulfonyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 535 [M+H]⁺;
- (2,5-dichlorophenyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 525 [M+H]⁺;
- [4-(methylthio)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 503 [M+H]⁺;
- 20 • cyanomethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 406 [M+H]⁺;
- 3-[3-(trifluoromethyl)-1H-pyrazol-4-yl]propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 543 [M+H]⁺;
- 25 • 2-isoxazol-4-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 462 [M+H]⁺;
- 2-(2-thienyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 477 [M+H]⁺;
- (5-methyl-1-phenyl-1H-pyrazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 537 [M+H]⁺;
- 30 • 2,2'-bithien-5-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 545 [M+H]⁺;

- 3-pyridin-2-ylpropyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 486 [M+H]⁺;
- 2-(methylthio)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 441 [M+H]⁺;
- 5 • pyridin-4-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 458 [M+H]⁺;
- 1,3-benzothiazol-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 514 [M+H]⁺;
- 3-thienylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 463 [M+H]⁺;
- 10 • 2-[(4-methylphenyl)sulfonyl]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 549 [M+H]⁺;
- 2-(4-methyl-1,3-thiazol-5-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 492 [M+H]⁺;
- 15 • (2-phenyl-1,3-thiazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 540 [M+H]⁺;
- 2-cyanoethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 420 [M+H]⁺;
- 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoic hydroxyacetic anhydride; MS (ES): 425 [M+H]⁺;
- 20 • [1-(phenylmethyl)-1H-imidazol-2-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 537 [M+H]⁺;
- (5-methyl-3-phenylisoxazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 538 [M+H]⁺;
- 25 • [4-(1H-pyrazol-1-yl)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 523 [M+H]⁺;
- [2,3-bis(methyloxy)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 517 [M+H]⁺;
- (5-methyl-2-phenyl-2H-1,2,3-triazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 538 [M+H]⁺;
- 30 • [4-(1H-1,2,4-triazol-1-yl)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 524 [M+H]⁺;

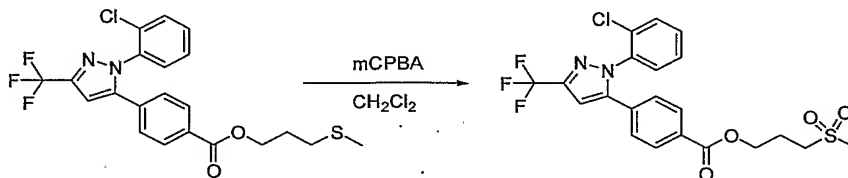
- [6-(phenyloxy)pyridin-3-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 550 [M+H]⁺;
- 2-{[4-(trifluoromethyl)pyridin-2-yl]oxy}ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 556 [M+H]⁺;
- 5 • 2-(3-methyl-5-oxo-4,5-dihydro-1H-pyrazol-4-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 491 [M+H]⁺;
- (2-butyl-5-chloro-1H-imidazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 537 [M+H]⁺;
- 10 • (5-pyridin-2-yl-2-thienyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 540 [M+H]⁺;
- (5-methyl-1H-imidazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 461 [M+H]⁺;
- 3-pyridin-3-ylpropyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 486 [M+H]⁺;
- 15 • 2-[(2-methylpropyl)thio]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 483 [M+H]⁺;
- [5-(2-methyl-1,3-thiazol-4-yl)-2-thienyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 560 [M+H]⁺;
- 2-(2-chlorophenyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 505 [M+H]⁺;
- 20 • pyridin-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 458 [M+H]⁺;
- 1H-imidazol-4-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 447 [M+H]⁺;
- 25 • (2-methylpyridin-3-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 472 [M+H]⁺;
- [1-(phenylsulfonyl)-1H-indol-3-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 636 [M+H]⁺;
- 2-(1H-imidazol-1-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 461 [M+H]⁺;
- 30 • 2-(diethylamino)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate; MS (ES): 466 [M+H]⁺;

- N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)glycine, MS(ES): 424 [M+H]⁺.
- N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-beta-alanine, MS(ES): 438 [M+H]⁺.

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Example 76

Preparation of 3-(methylsulfonyl)propyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate

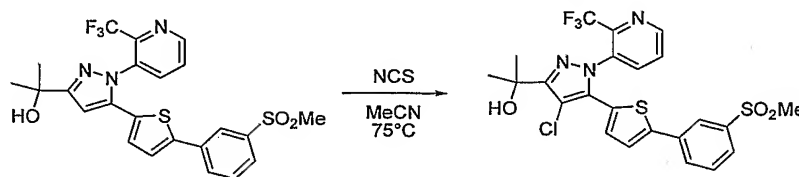


To a solution of 3-(methylthio)propyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate (382 mg, 0.84 mmol) in CH₂Cl₂ (10 mL) was added 3-chloroperoxybenzoic acid (429 mg of 77% technical grade, 1.9 mmol). After stirring at ambient temperature for 1 hour LC/MS indicated complete conversion to product. At this time the reaction was quenched by the addition of 10% aqueous sodium thiosulfate solution and saturated aqueous NaHCO₃. The basic aqueous was extracted with CH₂Cl₂ (3x). The combined organic extracts were dried over Na₂SO₄, filtered and the filtrate concentrated under reduced pressure to afford a thin film. This crude product was purified by flash column chromatography eluting with a gradient from 0% to 100% EtOAc/hexane to afford 3-(methylsulfonyl)propyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate (345 mg, 84% yield) as a sticky white solid. ¹H NMR (400 MHz CDCl₃): δ 7.98-7.91 (2H, m), 7.50 (1H, m), 7.48-7.36 (3H, m), 7.33-7.27 (2H, m), 6.88 (1H, s), 4.77 (2H, t), 3.45 (2H, t), 3.00 (3H, s). MS(ES): 487[M+H]⁺.

20

Example 77

Preparation of 2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol



25

To a solution of 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol (10.6g, 21 mmol) in MeCN (200 mL) was added N-chlorosuccinimide. The resulting solution was heated to 75°C in a heating mantle. After stirring for 3 hours at 75°C heating was discontinued and the solution was concentrated under reduced pressure to

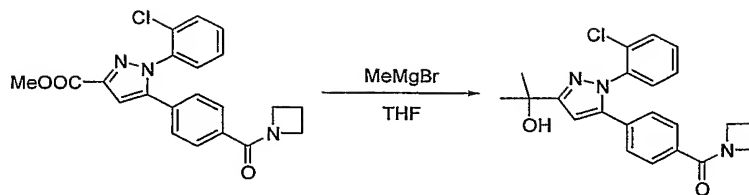
afford a yellow foam. This crude product was purified by flash column chromatography eluting with a gradient from 0% to 100% EtOAc/hexane. Fractions that were pure by TLC analysis were combined and concentrated under reduced pressure to afford a white sticky foam that was contaminated with succinimide as evidenced by NMR analysis. This material was taken up in CH₂Cl₂ and washed with saturated aqueous Na₂CO₃ (2x). The organic layer was dried over Na₂SO₄, filtered and concentrated under reduced pressure to afford 2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl]propan-2-ol (6.7 g, 60% yield) as an off-white foam. ¹H NMR (400 MHz CDCl₃): δ 8.85 (1H, m), 8.06 (1H, t), 7.86 (1H, m), 7.82-7.73 (2H, m), 7.67-7.62 (1H, m), 7.58 (1H, t), 7.28 (1H, d), 7.01 (1H, d), 3.08 (3H, s), 2.93 (1H, s), 1.73 (6H, s). MS(ES): 542[M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 2-(4-chloro-5-{3-methyl-5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 556 [M+H]⁺.
- 2-{4-chloro-1-(2,6-dichlorophenyl)-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 549 [M+H]⁺.
- 2-{4-chloro-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 550 [M+H]⁺.
- 2-{4-chloro-5-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 550 [M+H]⁺.
- 2-{4-chloro-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 536 [M+H]⁺.
- 2-{4-chloro-1-(2,6-dichlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 537 [M+H]⁺.
- 2-{4-chloro-5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl}propan-2-ol MS(ES): 571 [M+H]⁺.
- 2-{4-chloro-5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl}propan-2-ol MS(ES): 570 [M+H]⁺.

Example 78

Preparation of azetidin-1-yl(4-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-phenyl)methanone



To a cooled (-78°C) solution of methyl 5-(4-(azetidine-1-carbonyl)phenyl)-1-(2-chlorophenyl)-1H-pyrazole-3-carboxylate (138 mg, 0.35 mmol) in THF (5 mL) was added methymagnesium bromide (0.3 mL of a 3.0M solution in ether, 0.9 mmol). The resulting brown solution was allowed to slowly warm to ambient temperature overnight. The reaction was then quenched by the addition of saturated aqueous ammonium chloride solution and EtOAc. The aqueous was extracted with EtOAc (3x) and the combined organic extracts were washed with brine, dried (Na₂SO₄), filtered and concentrated under reduced pressure to afford a yellow film. This crude product was purified by flash column chromatography eluting with a gradient of 0% to 10% MeOH in CH₂Cl₂. The main peak was collected and was ~85% pure by HPLC. This material was further purified by reverse phase preparative HPLC eluting with MeCN/H₂O with 0.1% TFA. The product fractions from the HPLC were made basic by the careful addition of solid Na₂CO₃. The resulting mixture was concentrated to remove most of the MeCN. The resulting aqueous suspension was extracted with CH₂Cl₂ (3x), and the combined extracts were dried over Na₂SO₄ overnight, filtered and concentrated under reduced pressure to afford azetidin-1-yl(4-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)phenyl)methanone (43 mg, 31% yield) as a pale brown powder. ¹H NMR (400 MHz CDCl₃): δ 7.54-7.48 (2H, m), 7.46-7.40 (2H, m), 7.39-7.31 (2H, m), 7.24-7.19 (2H, m), 6.54 (1H, s), 4.32-4.16 (4H, m), 2.63 (1H, s), 2.38-2.28 (2H, m), 1.68 (6H, s). MS(ES): 396 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

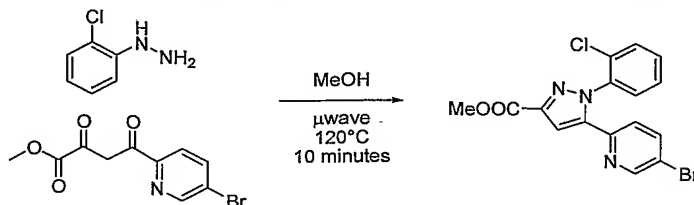
- 2-{1-(2-chlorophenyl)-5-[4-(pyrrolidin-1-ylcarbonyl)phenyl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 410 [M+H]⁺.

Example 79

2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol

Example 79a

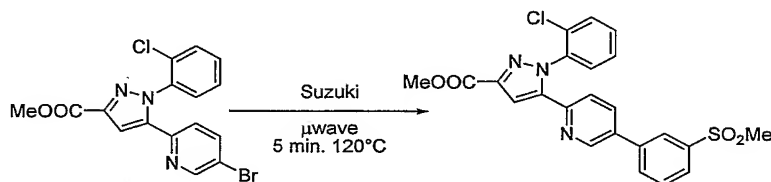
Preparation of methyl 5-(5-bromopyridin-2-yl)-1-(2-chlorophenyl)-1H-pyrazole-3-carboxylate



A mixture of (2-chlorophenyl)hydrazine hydrochloride (1.1g, 6.1 mmol) and methyl 4-(5-bromopyridin-2-yl)-2,4-dioxobutanoate (1.7g, 6.0 mmol) in MeOH (30 mL) was divided into two microwave reaction vessels. Each reaction vessel was then heated in the microwave at 120°C for ten minutes. LC/MS analysis at this time showed the reaction to be essentially complete. The solutions were concentrated under reduced pressure to afford a dark brown semi-solid. This material was taken up in EtOAc and saturated aqueous NaHCO₃. The layers were separated and the basic aqueous was extracted with EtOAc (3X). Combined organic extracts were washed with brine, dried over Na₂SO₄, filtered and concentrated to afford a dark oil. This crude product was purified by flash column chromatography eluting with a gradient from 0% to 100% EtOAc in hexane to afford methyl 5-(5-bromopyridin-2-yl)-1-(2-chlorophenyl)-1H-pyrazole-3-carboxylate (300 mg, 13% yield) as an oil.

Example 79b

Preparation of methyl 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazole-3-carboxylate



Methyl 5-(5-bromopyridin-2-yl)-1-(2-chlorophenyl)-1H-pyrazole-3-carboxylate (200mg, 0.51 mmol), 3-(methylsulfonyl)phenylboronic acid (120 mg, 0.60 mmol) and dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct (20 mg, 24 μmol), and K₂CO₃ (0.45 mL of a 3.5M aqueous solution, 1.6 mmol) were combined in DME (2.5 mL) in a microwave reaction vessel. The dark mixture was heated at 120°C for 5 minutes. The reaction mixture was diluted with EtOAc and H₂O. The aqueous layer was removed and extracted with additional EtOAc. The combined organics were dried over Na₂SO₄, treated with some decolorizing carbon and filtered through a pad of Celite. Concentration of the filtrates under reduced pressure and purification by flash column chromatography eluting with 0% to 50% MeCN/CH₂Cl₂ afforded methyl 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazole-3-carboxylate as a pale yellow foam. This material was carried on to the subsequent step. MS(ES): 468 [M+H]⁺.

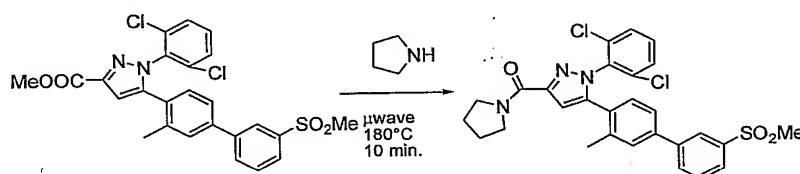
The following compounds are prepared essentially according to the previous examples:

- 2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol, ¹H NMR (400 MHz CDCl₃): δ 8.70 (1H, m), 8.11 (1H, m), 7.96 (1H, m), 7.87-7.80 (2H, m), 7.68 (1H, t), 7.57 (1H, m), 7.49-7.37 (3H, m), 7.32 (1H, d), 6.89 (1H, s), 3.09 (3H, s), 1.70 (6H, s). MS(ES): 468 [M+H]⁺.

- 2-[1-(2-chlorophenyl)-5-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 468 [M+H]⁺.
- 2-[4-chloro-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 502 [M+H]⁺.
- 5 • 2-[4-chloro-1-(2-chlorophenyl)-5-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 502 [M+H]⁺.

Example 80

Preparation of (1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)(pyrrolidin-1-yl)methanone



10

Methyl 1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazole-3-carboxylate (102 mg, 0.20 mmol) was suspended in pyrrolidine (0.6 mL, 7.2 mmol) and heated in the microwave at 180°C for 10 minutes. The dark reaction mixture was concentrated under reduced pressure and azeotroped with toluene to remove most of the pyrrolidine. The resulting crude product was purified by preparative reverse phase HPLC eluting with MeCN/H₂O with 0.05% TFA. The product fractions from the HPLC were made basic by the careful addition of saturated aqueous NaHCO₃. The resulting mixture was concentrated to remove most of the MeCN. The resulting aqueous suspension was extracted with CH₂Cl₂ (3x), and the combined extracts were dried over Na₂SO₄ overnight, filtered and concentrated under reduced pressure to afford (1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)(pyrrolidin-1-yl)methanone (15 mg, 14% yield) as a brown solid. ¹H NMR (400 MHz CDCl₃): δ 8.10 (1H, m), 7.91 (1H, m), 7.83 (1H, m), 7.62 (1H, t), 7.49 (1H, d), 7.42-7.34 (2H, m), 7.33-7.21 (2H, m), 7.13 (1H, d), 7.06 (1H, s), 3.99 (2H, t), 3.71 (2H, t), 3.08 (3H, s), 2.50 (3H, s), 2.03-1.86 (4H, m). MS(ES): 554 [M+H]⁺.

20

The following compounds are prepared essentially according to the previous examples:

- 25 • 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-3-(pyrrolidin-1-yl)carbonyl)-1H-pyrazole MS(ES): 576 [M+H]⁺.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-N-(2-methylpropyl)-1-[2-(trifluoromethyl)pyridin-3-yl]-1H-pyrazole-3-carboxamide MS(ES): 577 [M+H]⁺.
- 5-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1-(2,6-dichlorophenyl)-N-(2-methylpropyl)-1H-pyrazole-3-carboxamide MS(ES): 578 [M+H]⁺.

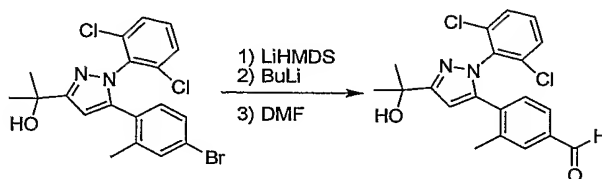
30

Example 81

(E)-3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoic acid

Example 81a

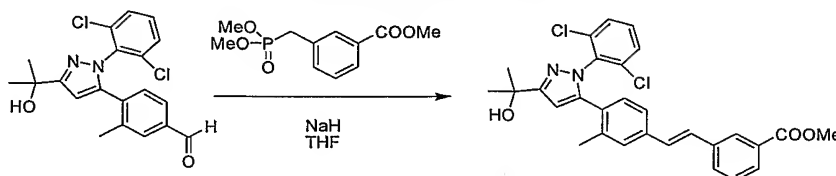
Preparation of 4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylbenzaldehyde



To a cold (-78°C) solution of 2-(5-(4-bromo-2-methylphenyl)-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol (215 mg, 0.49 mmol) in a mixture of THF (4 mL) and Et_2O (4 mL) was added lithium bis(trimethylsilyl)amide (0.5 mL of a 1.0M solution in THF, 0.5 mmol). After several minutes stirring at -78°C the resulting alkoxide solution was treated with n-butyllithium (1.0 mL of a 1.6M solution in hexane, 1.6 mmol). After 10 minutes stirring at -78°C , LC/MS showed some starting bromide present in a quenched aliquot of the reaction. After 30 minutes additional n-butyllithium was added (0.5 mL of a 1.6M solution in hexane, 0.8 mmol). After an additional 15 minutes stirring at -78°C the reaction mixture was treated with dry N,N-dimethylformamide (0.4 mL, 5.2 mmol). Several minutes after the addition of the DMF, the -78°C bath was replaced with an ice bath and the reaction mixture was allowed to come to ambient temperature overnight. The reaction was quenched by the addition of saturated NH_4Cl and diluted with EtOAc . The layers were separated and the aqueous was extracted with EtOAc (3x). Combined organic extracts were washed with brine, dried (Na_2SO_4), filtered and concentrated under reduced pressure to afford a yellow syrup. The crude product was purified by flash column chromatography eluting with 0% to 100% EtOAc /hexane to afford 4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylbenzaldehyde which was carried on to the next step without further purification. MS(ES): 389 $[\text{M}+\text{H}]^+$.

Example 81b

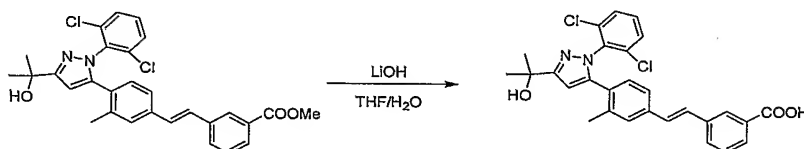
Preparation of *(E)*-methyl 3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoate



To a suspension of NaH (52 mg of a 60% dispersion in mineral oil) in THF (7.5 mL) cooled to 0°C in an ice bath was added methyl 3-((dimethoxyphosphoryl)methyl)benzoate as a solution in THF (1 mL) followed by a THF (1 mL) rinse of the phosphonate vial and syringe to insure complete transfer. The ice bath was removed and the reaction was allowed to warm to ambient temperature. After 90 minutes at ambient temperature, 4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylbenzaldehyde (0.49 mmol impure from previous step) was added via cannula to the reaction mixture followed by a THF (1 mL) rinse of the flask and cannula. after 1 hour-45 minutes at ambient temperature the reaction was quenched by addition of saturated aqueous NH₄Cl and EtOAc. The layers were separated and the aqueous was extracted with EtOAc (3x). Combined organic extracts were washed with brine, dried (Na₂SO₄), filtered and concentrated under reduced pressure to afford a yellow syrup. The crude product was purified by flash column chromatography eluting with a gradient from 0% to 40% MeCN/CH₂Cl₂ to afford (E)-methyl 3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoate (180 mg, 70% yield) of slightly impure product. This material was carried on to the ester hydrolysis without further purification. MS(ES): 521 [M+H]⁺.

Example 81c

Preparation of (E)-3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoic acid

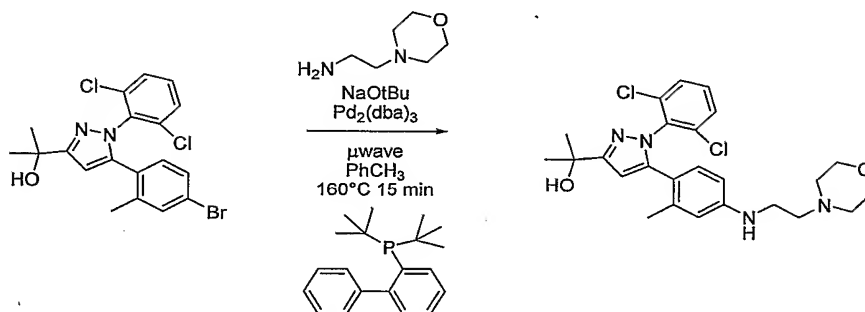


To a solution of (E)-methyl 3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoate (180 mg of impure material from previous step, 0.35 mmol) in THF (2.0 mL) was added H₂O (0.4 mL) followed by lithium hydroxide monohydrate (25.3 mg, 0.6 mmol). After stirring for 1 hour at ambient temperature a biphasic mixture had formed, and LC/MS analysis of the reaction showed no reaction. a small amount of MeOH was added to homogenize the mixture, and the reaction was then heated to 50 °C in an oil bath. After 2 hours stirring at 50°C, LC/MS analysis showed the reaction to be complete. Heating was discontinued, and after stirring at ambient temperature overnight, the reaction was quenched by the addition of 5% aqueous citric acid, and EtOAc. The layers were separated and the aqueous was extracted with EtOAc (3x). Combined organic extracts were washed with brine, dried (Na₂SO₄), filtered and concentrated under reduced pressure to afford a clear film. This material was purified by reverse phase preparative HPLC eluting with a gradient of MeCN/H₂O with 0.05% TFA. The major peak from the HPLC was concentrated under reduced pressure to remove most of the solvents, and the resulting acidic aqueous was extracted with CH₂Cl₂.

(3x). The combined organic extracts were washed with H₂O until the washings were no longer acidic (2x), dried over Na₂SO₄, filtered, and concentrated under reduced pressure to afford (E)-3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoic acid (45.4 mg, 26% yield) as a white powder. ¹H NMR (400 MHz CDCl₃): δ 8.21 (1H, s), 7.98 (1H, d), 7.69 (1H, d), 7.45 (1H, t), 7.39 (1H, d), 7.37-7.31 (2H, m), 7.23 (1H, m), 7.15 (1H, m), 7.12-7.07 (2H, m), 7.06 (1H, m), 6.46 (1H, s), 2.45 (3H, s), 1.71 (6H, s). MS(ES): 529 [M+Na]⁺.

Example 82

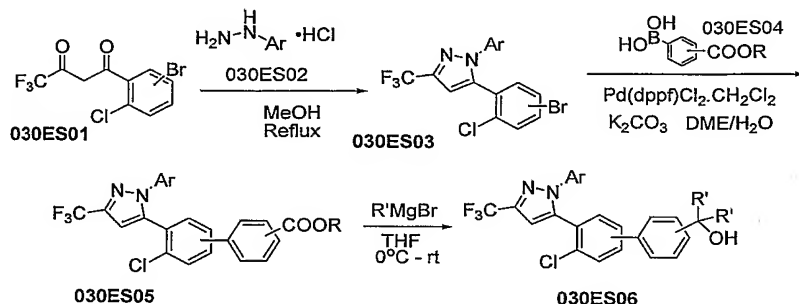
Preparation of 2-(1-(2,6-dichlorophenyl)-5-(2-methyl-4-(2-morpholinoethylamino)phenyl)-1H-pyrazol-3-yl)propan-2-ol



A mixture of 2-(5-(4-bromo-2-methylphenyl)-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol ((160 mg, 0.36 mmol), 2-morpholinoethanamine (75 mL, 0.57 mmol), sodium tert-butoxide (54 mg, 0.57 mmol), biphenyl-2-yl-di-tert-butylphosphine (13.1 mg, 44 μmol), and Pd₂(dba)₃ (19.8 mg, 22 μmol) was placed in a microwave reaction vial and heated at 160°C for 15 minutes. After cooling, the reaction was diluted with saturated aqueous NaHCO₃, and EtOAc. The layers were separated and the aqueous was extracted with EtOAc (3x). Combined organic extracts were washed with brine, dried (Na₂SO₄), filtered and concentrated under reduced pressure to afford a dark oil. This material was purified by reverse phase preparative HPLC eluting with a gradient of MeCN/H₂O with 0.05% TFA. The product peak from the HPLC was basified by addition of saturated aqueous NaHCO₃, and concentrated under reduced pressure to remove most of the solvents. The basic aqueous was extracted with CH₂Cl₂ (3x). The combined organic extracts were dried over Na₂SO₄, filtered, and concentrated under reduced pressure to afford 2-(1-(2,6-dichlorophenyl)-5-(2-methyl-4-(2-morpholinoethylamino)phenyl)-1H-pyrazol-3-yl)propan-2-ol (67 mg, 38% yield) as a white foam. ¹H NMR (400 MHz CDCl₃): δ 7.34-7.29 (2H, m), 7.20 (1H, m), 6.84 (1H, d), 6.46 (1H, d), 6.32 (1H, s), 6.23 (1H, m), 4.32 (1H, s), 3.74-3.66 (4H, m), 3.15-3.07 (2H, m), 2.66 (1H, s), 2.63-2.55 (2H, t), 2.48-2.40 (4H, m), 2.33 (3H, s), 1.67 (6H, s). MS(ES): 489 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 2-[1-(2,6-dichlorophenyl)-5-{2-methyl-4-[(2-piperidin-1-ylethyl)amino]phenyl}-1H-pyrazol-3-yl]propan-2-ol MS(ES): 487 [M+H]⁺.
- 2-[1-(2,6-dichlorophenyl)-5-(2-methyl-4-{[2-(methylsulfonyl)ethyl]amino}phenyl)-1H-pyrazol-3-yl]propan-2-ol MS(ES): 504 [M+Na]⁺.
- 5 • 2-[1-(2,6-dichlorophenyl)-5-{4-[(1,1-dioxidotetrahydro-3-thienyl)amino]-2-methylphenyl}-1H-pyrazol-3-yl]propan-2-ol MS(ES): 516 [M+Na]⁺.

Scheme 30

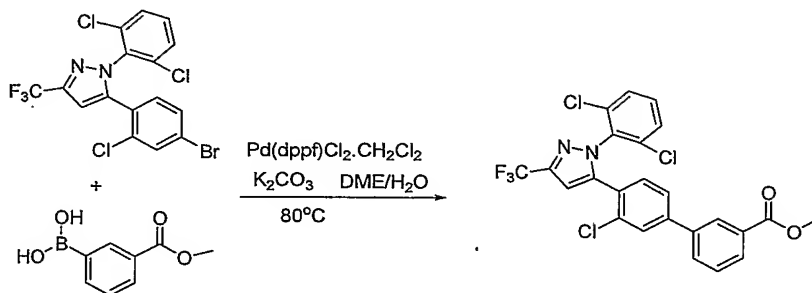
As depicted in Scheme 30, alkoxy carbonyl biphenyl pyrazoles were prepared from the condensation of a hydrazine with a diketone and were further transformed into carbinols. Diketone **030ES01** can be condensed with hydrazine **030ES02** in a manner similar to Example 2c to afford pyrazole **030ES03**. The resulting pyrazole can then be coupled with boronic acid **030ES04** under palladium-catalyzed coupling conditions in a manner similar to Example 1c to afford biaryl ester **030ES05**. Treatment of the ester with an alkylmagnesium halide in a manner similar to Example 5 affords alcohol **030ES06**.

Example 82

2-{3'-chloro-4'-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}propan-2-ol

Example 82a

Preparation of methyl 3'-chloro-4'-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-carboxylate

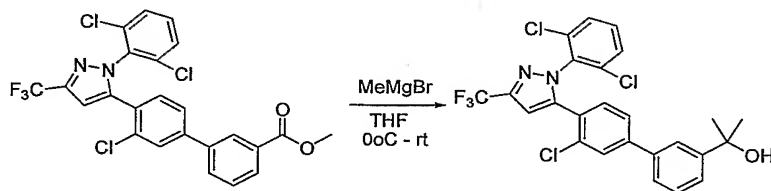


To a solution of 5-(4-bromo-2-chlorophenyl)-1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazole (3.55g, 7.55 mmol) and 3-(methoxycarbonyl)phenylboronic acid (1.77 g, 9.83 mmol) in 1,2-

dimethoxyethane (36mL) was added K_2CO_3 (3.126 g, 22.65 mmol) and H_2O (4 mL). The resulting biphasic suspension was stirred at ambient temperature and sparged with nitrogen for 10 minutes. The reaction was then treated with dichloro[1,1'-bis(diphenylphosphino)ferrocene]palladium (II) dichloromethane adduct (600 mg, 0.734mmol) and heated to 80°C in an oil bath. The reaction was heated at 80°C for 10 hours and then allowed to cool to ambient temperature. The cooled reaction mixture was diluted with EtOAc and H_2O . The aqueous layer was extracted with EtOAc (3x). The combined organic extracts were washed with brine, dried over Na_2SO_4 , filtered and concentrated to afford crude product as a dark oil. The crude product was purified by flash-column chromatography eluting with a gradient from 0% to 40% EtOAc/hexane to afford methyl 3'-chloro-4'-(1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)biphenyl-3-carboxylate (3.50 g, 88% yield) solid. MS(ES): 525 $[M+H]^+$.

Example 82b

Preparation of 2-{3'-chloro-4'-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}propan-2-ol

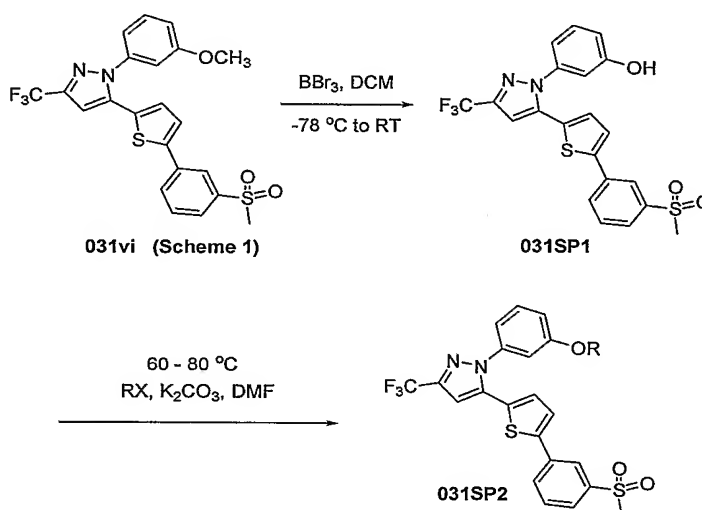


To a suspension of methyl 3'-chloro-4'-(1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)biphenyl-3-carboxylate (1.15 g, 2.19 mmol) in dry tetrahydrofuran (10 mL) stirred at 0°C in icebath was added methylmagnesium bromide (2.04 mL of a 3.0M solution in tetrahydrofuran, 6.12 mmol) dropwise. After adding the methylmagnesium bromide, the icebath was removed. After 2 hours stirring at ambient temperature the reaction mixture was quenched by the addition of saturated ammonium chloride and EtOAc. The aqueous layer was extracted with EtOAc (3x). The combined organic extract were dried over Na_2SO_4 , filtered and concentrated under reduced pressure to afford brown oil. The crude product was purified by flash-column chromatography eluting with a gradient from 0% to 100% EtOAc/hexane to afford (450 mg, 39% yield) foamed white solid. MS(ES): 525 $[M+H]^+$. 1H -NMR($CDCl_3$): δ 7.73-7.67 (2H, m), 7.48 (1H, m), 7.44-7.28 (6H, m), 7.19 (1H, d), 6.98 (1H, s), 1.74 (1H, s), 1.62 (6H, s).

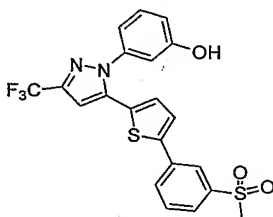
The following compounds are prepared essentially according to the previous examples:

- 2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propan-2-ol, MS(ES): 463 $[M+H]^+$.

- 2-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propan-2-ol, MS(ES): 463 $[M+H]^+$.
 - 2-[3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]propan-2-ol, MS(ES): 498 $[M+H]^+$.
- 5 • 2-[4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]propan-2-ol, MS(ES): 498 $[M+H]^+$.

Scheme 31

- 10 As depicted in Scheme 31, 3-methoxy substituted pyrazole (**031vi**) prepared as described in Scheme 1 was transformed into phenol **031SP1**, which was treated with alkyl halide in the presence of a base to afford 3-alkoxy substituted pyrazole **031SP2**.

Example 83

- 15 *Preparation of 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol.*

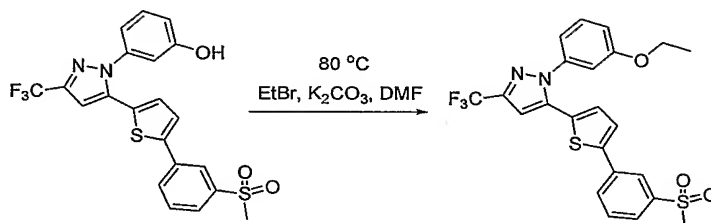
1-(3-methoxyphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole (**031vi**) was prepared as described in Scheme 1. A solution of 1.0 M boron tribromide (59.33 mL, 59.33 mmol) in anhydrous DCM was slowly added to a solution of the 3-methoxy substituted pyrazole (9.464 g, 19.78 mmol) in 20 mL of anhydrous DCM at -78°C under nitrogen. The mixture

20

was vigorously stirred and allowed to warm to ambient temperature overnight. The reaction mixture was then cooled to 0 °C with an ice/water bath and about 50.0 mL of MeOH was added in portion. The mixture was stirred at room temperature for 1 h and concentrated *in vacuo*. The residue was dissolved in dichloromethane and neutralized to pH 7 by adding 1 N NaOH. The organic layer was washed with
 5 brine, water, separated and dried with anhydrous Na₂SO₄. The dichloromethane was concentrated *in vacuo*. The resulting crude product was purified by column chromatography (30-60 % EtOAc/hexane), providing the product 3-hydroxy substituted pyrazole (4.13 g, 45% yield). ¹H-NMR (Acetone-d₆): δ 8.83 (s, 1H), 8.04 (m, 1 H), 7.85 (m, 1H), 7.81 (m, 1 H), 7.61 (m, 1 H) 7.51 (m, 1 H), 7.30 (m, 1 H), 7.06 (m, 2 H), 6.95 (m, 1 H), 6.92 (m, 1 H), 6.90 (m 1 H), 3.08 (s, 3 H); MS (ES): 465 [M+H]⁺.

Example 84

Preparation of 1-(3-ethoxyphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole



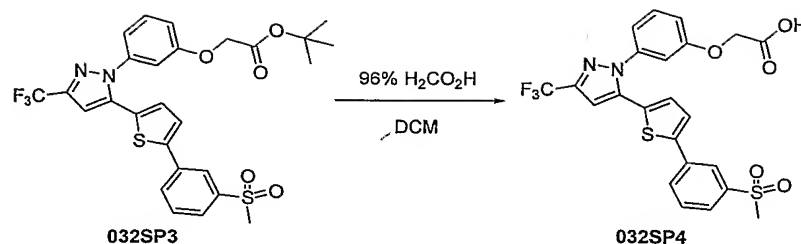
3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol (80 mg,
 0.17 mmol) was dissolved in anhydrous DMF (3 mL). To this solution was added potassium carbonate (29 mg, 0.20 mmol) and ethyl bromide (38 mg, 0.34 mmol) in anhydrous DMF (3.0 mL). The reaction mixture was heated at 80 °C under nitrogen atmosphere for overnight. After the mixture was cooled off, it was poured into 20.0 mL of water and extract with ethyl acetate. The combined organic layer was washed with brine and water and concentrated *in vacuo*. The crude product was purified by flash
 20 column chromatography (60% ethyl acetate in hexane), providing the product 3-ethoxy substituted pyrazole (65 mg, 77% yield). ¹H-NMR (CDCl₃): δ 8.08 (m, 1H), 7.86 (m, 1 H), 7.77 (m, 1H), 7.59 (m, 1 H), 7.34 (m, 1 H), 7.27 (m, 1 H), 7.01 (m, 1 H), 6.99 (m, 1 H), 6.98 (m, 1 H), 6.87 (m, 1 H), 6.84 (m, 1 H), 4.04 (q, J = 6.8 Hz, 2 H), 3.09 (s, 3 H), 1.40 (t, J = 6.8 Hz, 3 H). MS (ES): 493 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 1-(3-isopropoxyphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole. MS (ES): 507 [M+H]⁺
- 1-(3-isobutoxyphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole. MS (ES): 521 [M+H]⁺
- tert-Butyl 2-methyl-2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)propanoate. MS (ES): 607 [M+H]⁺.

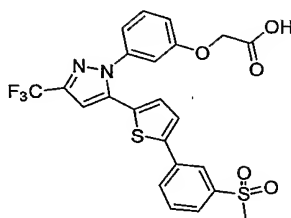
- 2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenol. MS (ES) 465.0 $[M+H]^+$,
- Diethyl-[2-(2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-ethyl]-amine. MS (ES) 564.3 $[M+H]^+$,
- 5 • (2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-acetic acid tert-butyl ester. MS (ES) 579.4 $[M+H]^+$,
- 1-[2-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-ethyl]-piperidine. MS (ES) 576.3 $[M+H]^+$,
- 4-[2-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-ethyl]-morpholine. MS (ES) 578.4 $[M+H]^+$,
- 10 • 2-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)methyl-pyridine. MS (ES) 556.3 $[M+H]^+$,
- 4-[3-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-propyl]-morpholine. MS (ES) 592.0 $[M+H]^+$,
- 15 • 1-[3-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-propyl]-4-methyl-piperazine. MS (ES) 605.0 $[M+H]^+$,
- 1-[2-(2,2-Dimethyl-propoxy)-phenyl]-5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole. MS (ES) 535.3 $[M+H]^+$, 557.3 $[M+Na]^+$
- 2-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenoxy)-ethanol. MS (ES) 509.3 $[M+H]^+$
- 20 • 1-[2-(3-Chloro-propoxy)-phenyl]-5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole. MS (ES) 541.3, 543.3 $[M+H]^+$
- 1-(2-Ethoxy-phenyl)-5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole. , MS (ES) 493.3 $[M+H]^+$
- 25 • 1-(2-Isopropoxy-phenyl)-5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole. , MS (ES) 507.3 $[M+H]^+$
- 1-(2-Isobutoxy-phenyl)-5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole. , MS (ES) 521.4 $[M+H]^+$

Scheme 32



As depicted in Scheme 32, t-butyl ester **032SP3** was treated with formic acid in DCM to afford acid **032SP4**.

Example 85



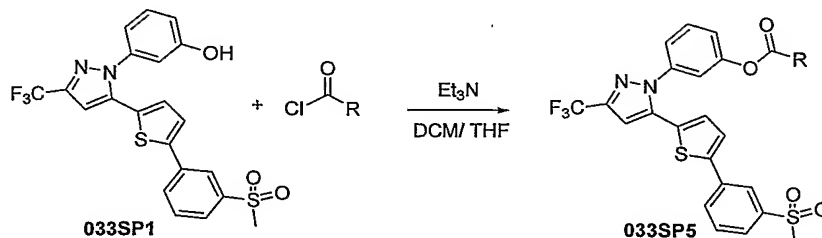
Preparation of 2-(3-(5-(5-(3-(methanesulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)acetic acid.

tert-Butyl 2-(3-(5-(5-(3-(methanesulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)acetate was prepared in a manner described in Scheme 31. To a solution of the t-butyl ester (70 mg, 0.12 mmol) in anhydrous DCM (2.0 mL) was added 2.0 mL of 96% formic acid. The reaction mixture was stirred at room temperature for overnight. It was concentrated and the residue was purified by flash silica gel column chromatography (10% MeOH/ DCM), providing the product (28 mg, 45% yield). $^1\text{H-NMR}$ (Acetone- d_6): δ 8.01 (s, 1H), 7.82 (m, 1 H), 7.77 (m, 1 H), 7.57 (m, 1 H), 7.45 (m, 1 H), 7.37 (m, 1 H), 7.08-7.01 (br, 5 H), 4.68 (s, 2 H), 3.05 (s, 3 H). MS (ES): 523 $[\text{M}+\text{H}]^+$.

The following compounds are prepared essentially according to the previous examples:

- 2-(5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl)-phenoxy)-acetic acid. MS (ES) 523.3 $[\text{M}+\text{H}]^+$

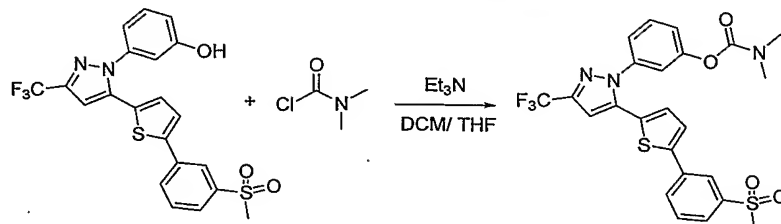
Scheme 33



As depicted in Scheme 33, 3-hydroxy substituted pyrazole **033SP1** was treated with dialkyl carbamic chloride or acyl chloride in the presence of base to afford carbamate or ester, **033SP5**.

Example 86

Preparation of 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl dimethylcarbamate

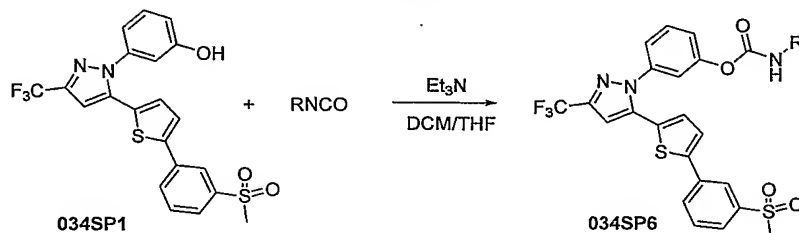


To a solution of 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol (80 mg, 0.17 mmol) and triethylamine (35 mg, 0.34 mmol) in anhydrous DCM (1.5 mL) and THF (1.5 mL) was added dimethyl carbamic chloride (28 mg, 0.26 mmol). The reaction mixture was heated to reflux at 85 °C under nitrogen atmosphere for overnight. It was cooled off and concentrated *in vacuo*. The residue was purified by column chromatography (60% ethyl acetate in hexane) to yield product carbamate (24 mg, 26% yield). ¹H-NMR (CDCl₃): δ 8.10 (m, 1 H), 7.85 (m, 1 H), 7.79 (m, 1 H), 7.58 (m, 1 H), 7.42 (m, 1 H), 7.35 (m, 1 H), 7.28 (m, 1 H), 7.26 (m, 1 H), 7.22 (m, 1 H), 6.91 (m, 1 H), 6.84 (s, 1 H), 3.09 (s, 6 H), 3.00 (s, 3 H). MS (ES): 536 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl diethylcarbamate. MS (ES): 564 [M+H]⁺.
- Isobutyric acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. , MS (ES) 535.3 [M+H]
- 2,2-Dimethyl-propionic acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. MS (ES) 549.3 [M+H]⁺
- Dimethyl-carbamic acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. MS (ES) 536.3 [M+H]⁺

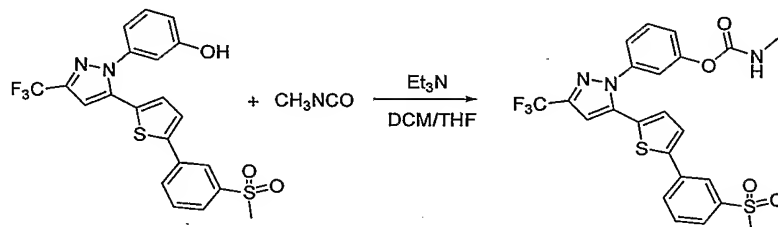
Scheme 34



As depicted in Scheme 34, 3-hydroxy substituted pyrazole **034SP1** was treated with alkyl isocyanate in the presence of base to afford carbamate **034SP6**.

Example 87

Preparation of 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl methylcarbamate.



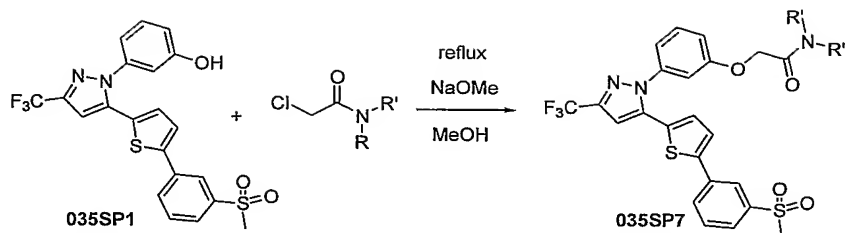
3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol (80 mg, 0.17 mmol) was dissolved in anhydrous DCM (1.5 mL) and THF (1.5 mL). To this solution was added triethylamine (35 mg, 0.34 mmol) and methyl isocyanate (15 mg, 0.26 mmol). The reaction mixture was stirred at room temperature under nitrogen atmosphere for overnight. The solvent was evaporated *in vacuo*. The residue was purified by column chromatography (60% ethyl acetate in hexane) to yield the product methylcarbamate (56 mg, 95% yield). ¹H-NMR (CDCl₃): δ 8.10 (m, 1 H), 7.86 (m, 1 H), 7.79 (m, 1 H), 7.59 (m, 1 H), 7.43 (m, 1 H), 7.32 (m, 1 H), 7.29-7.24 (br, 3 H), 6.91 (m, 1 H), 6.84 (m, 1 H), 5.02 (br, 1 H), 3.10 (s, 3 H), 2.89 (s, 3 H), 2.88 (s, 3 H).

MS (ES): 522 [M+H]⁺

The following compounds are prepared essentially according to the previous examples:

- 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl propylcarbamate. MS (ES): 550 [M+H]⁺
- Methyl-carbamic acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. MS (ES) 522.3 [M+H]⁺
- Propyl-carbamic acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. MS (ES) 550.3 [M+H]⁺
- Isopropyl-carbamic acid 2-{5-[4-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl ester. MS (ES) 550.3 [M+H]⁺

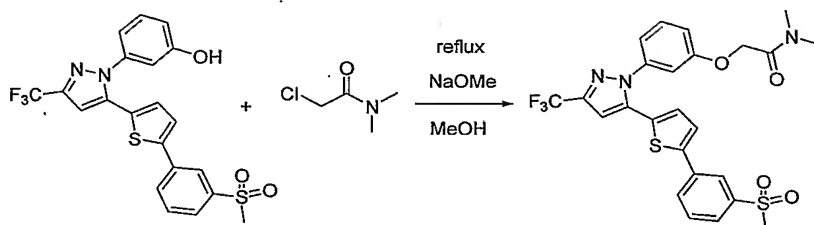
Scheme 35



As depicted in Scheme 35, 3-hydroxy substituted pyrazole **035SP1** was treated with 2-chloroacetamide in the presence of base to afford acetamide **035SP7**.

Example 88

- 5 Preparation of *N,N*-dimethyl-2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)acetamide.



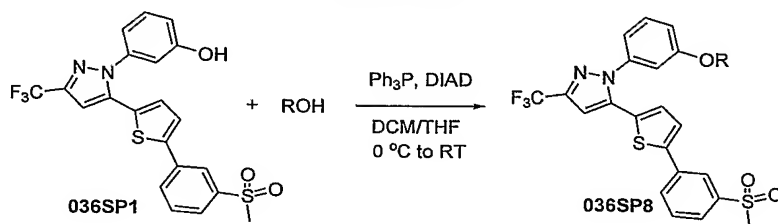
- 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol (120 mg, 0.26 mmol) was dissolved in anhydrous methanol (10.0 mL). To this solution was added a 25 wt% solution of NaOMe in methanol (130 μ L, 0.57 mmol) and 2-chloro-*N,N*-dimethyl- acetamide (156 mg, 1.28 mmol). The reaction mixture was heated to reflux at 80 °C under nitrogen atmosphere for overnight. It was cooled off and concentrated *in vacuo*. The residue was purified by column chromatography (50% ethyl acetate in hexane) to yield the product (87 mg, 61% yield). ¹H-NMR (Acetone-*d*₆): δ 8.21 (m, 1 H), 8.03 (m, 1 H), 7.96 (m, 1 H), 7.76 (m, 1 H), 7.65(m, 1 H), 7.52 (m, 1 H), 7.25-7.16 (br, 5 H), 4.94 (s, 2 H), 3.25 (s, 3 H), 3.09 (s, 3 H), 2.90 (s, 3 H), 2.88 (s, 3 H). MS (ES): 550 [M+H]⁺

The following compounds were prepared in a similar manner:

- 2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)-1-morpholinoethanone. MS (ES): 592 [M+H]⁺
- 20 • *N,N*-diethyl-2-(2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)acetamide; MS (ES): 578 [M+H]⁺;
- 4-[(2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)methyl]pyridine; MS (ES): 556 [M+H]⁺;
- 25 • *N*-(1-methylethyl)-2-(2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)acetamide; MS (ES): 564 [M+H]⁺;

- 5-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)pentanenitrile; MS (ES): 546 [M+H]⁺;
- 5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-({[1-(phenylmethyl)-1H-imidazol-2-yl]methyl}oxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole; MS (ES): 635 [M+H]⁺;
- 5 • 2-[2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]-1H-isoindole-1,3(2H)-dione; MS (ES): 638 [M+H]⁺;
- 2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)-N-phenylacetamide; MS (ES): 598 [M+H]⁺;
- 10 • 6-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)hexan-2-one; MS (ES): 563 [M+H]⁺;
- 1-{4-[({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]phenyl}-1H-1,2,4-triazole; MS (ES): 622 [M+H]⁺;
- 5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-({[3-(nitrophenyl)methyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole; MS (ES): 600 [M+H]⁺;
- 15 • N,N-diethyl-2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetamide; MS (ES): 578 [M+H]⁺.
- 4-[({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]pyridine; MS (ES): 556 [M+H]⁺.
- N-(1-methylethyl)-2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetamide; MS (ES): 564 [M+H]⁺.
- 20 • 5-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)pentanenitrile; MS (ES): 546 [M+H]⁺.
- 5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-({[1-(phenylmethyl)-1H-imidazol-2-yl]methyl}oxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole; MS (ES): 635 [M+H]⁺.
- 25 • 2-[2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]-1H-isoindole-1,3(2H)-dione; MS (ES): 638 [M+H]⁺.
- 2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)-N-phenylacetamide; MS (ES): 598 [M+H]⁺.
- 6-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)hexan-2-one; MS (ES): 563 [M+H]⁺.
- 30 • 1-{4-[({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]phenyl}-1H-1,2,4-triazole; MS (ES): 622 [M+H]⁺.

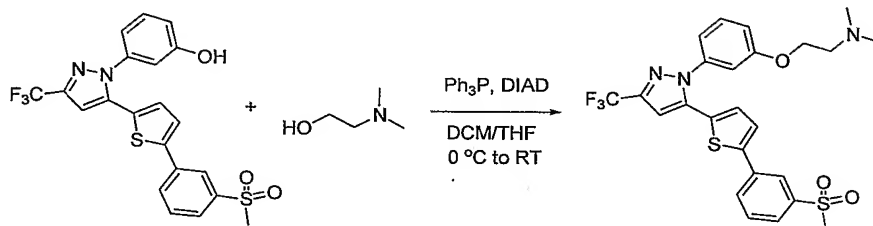
- 5- $\{4-[3-(\text{methylsulfonyl})\text{phenyl}]-2\text{-thienyl}\}-1-(2-\{[(3\text{-nitrophenyl)methyl]oxy\}\text{phenyl})-3-(\text{trifluoromethyl})-1\text{H-pyrazole}\}$; MS (ES): 600 $[\text{M}+\text{H}]^+$.

Scheme 36

As depicted in Scheme 36, 3-hydroxy substituted pyrazole **036SP1** was treated with an alcohol in the presence of triphenyl phosphine and diisopropyl azodicarboxylate to afford 3-alkoxy substituted pyrazole **036SP8**.

Example 89

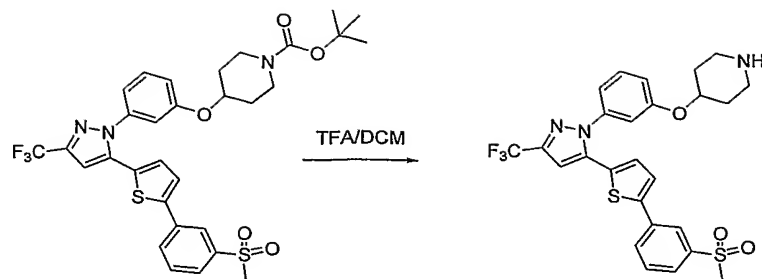
Preparation of N,N-dimethyl-2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)ethanamine.



3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenol (120 mg, 0.26 mmol), 2-(dimethylamino)ethanol (46 mg, 0.52 mmol) and triphenylphosphine (138 mg, 0.52 mmol) were dissolved in a mixture solvent of anhydrous THF (2.5 mL) and DCM (2.5 mL) and cooled off at 0 °C under nitrogen atmosphere. To this solution was added diisopropyl azodicarboxylate (111 mg, 0.52 mmol). The reaction mixture was stirred vigorously and warmed up to room temperature overnight. The solvent was evaporated *in vacuo* and the residue was purified by HPLC, providing the product (61 mg, 44%). ¹H-NMR (Acetone-d₆): δ8.13 (m, 1 H), 7.93 (m, 1 H), 7.90 (m, 1 H), 7.71 (m, 1 H), 7.60 (m, 1 H), 7.47 (m, 1 H), 7.17-7.09 (br, 5 H), 4.12 (t, J = 5.8 Hz, 2 H), 3.18 (s, 3 H), 2.65 (t, J = 5.8 Hz, 2 H), 2.21 (s, 6 H). MS (ES): 536 $[\text{M}+\text{H}]^+$.

Example 90

Preparation of 4-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)piperidine

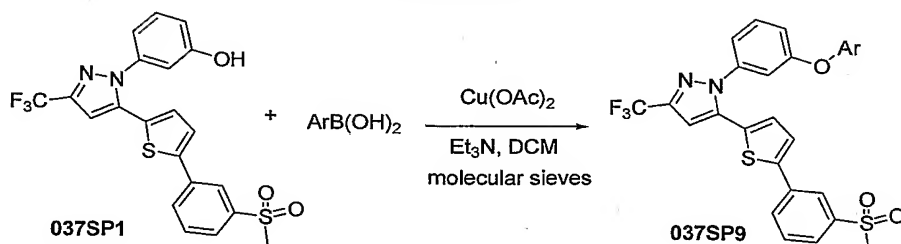


tert-Butyl 4-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)piperidine-1-carboxylate was prepared as described in Scheme 36. The t-butyl carbamate (83 mg, 0.13 mmol) was dissolved in trifluoroacetic acid (0.5 mL) and anhydrous DCM (4.0 mL). It was stirred at room temperature under nitrogen atmosphere for overnight. The reaction mixture was concentrated *in vacuo* and the residue was taken into DCM. Potassium carbonate was added into the DCM solution and it was stirred for 2 hours. The salt was filtered and the filtrate was concentrated *in vacuo*. The residue was purified by column chromatography (10% isopropyl alcohol in DCM), providing the product amine (45 mg, 64%). ¹H-NMR (DMSO-d₆): δ 8.01 (m, 1 H), 7.89 (m, 1 H), 7.69 (m, 1 H), 7.49 (m, 1 H), 7.41 (m, 1 H), 7.26 (m, 1 H), 7.23 (m, 2 H), 7.13 (m, 1 H), 4.63 (m, 1 H), 3.28 (s, 3 H), 3.11 (m, 2 H), 2.87 (m, 2 H), 1.99 (m, 2 H), 1.71 (m, 2 H). MS (ES): 548 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

- 4-(2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)ethyl)morpholine. MS (ES): 578 [M+H]⁺
- 1-(2-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenoxy)ethyl)piperidine. MS (ES): 576 [M+H]⁺
- 5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-(tetrahydrofuran-3-yloxy)phenyl)-3-(trifluoromethyl)-1H-pyrazole. MS (ES): 535 [M+H]⁺

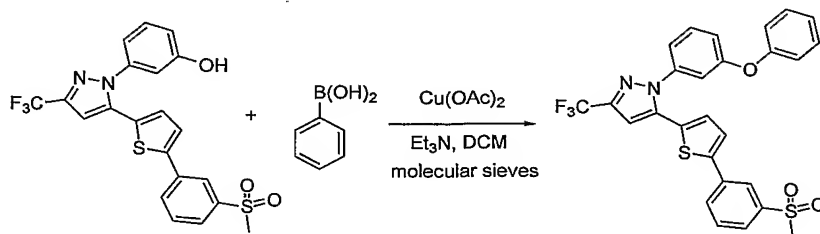
Scheme 37



As depicted in Scheme 37, the hydroxyl substituted pyrazole **037SP1** was treated with arylboronic acid in the presence of triethylamine and copper (II) acetate to afford the product diaryl ether **037SP9**.

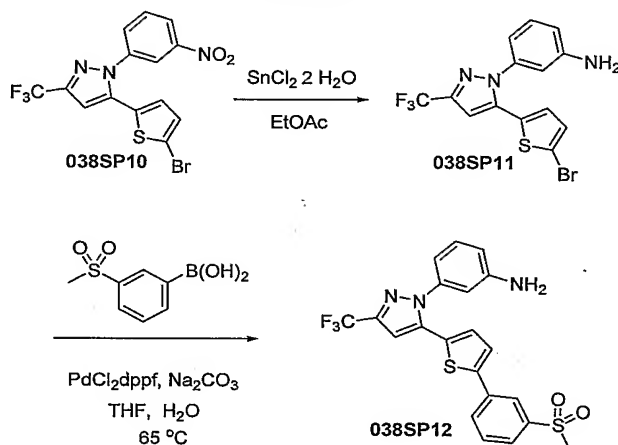
Example 91

Preparation of 5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-phenoxyphenyl)-3-(trifluoromethyl)-1H-pyrazole.



To a solution of 3-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-ylphenol (120 mg, 0.26 mmol) in anhydrous DCM (6.0 mL) was added Cu(OAc)₂ (94 mg, 0.52 mmol), phenylboronic acid (63 mg, 0.52 mmol) and powdered 4 Å molecular sieves and triethylamine (131 mg, 1.29 mmol). The heterogeneous reaction mixture was stirred at ambient temperature for overnight. The resulting slurry was filtered through celite and the solvent was evaporated *in vacuo*. The crude product was purified by column chromatography (40% ethyl acetate in hexane), providing product diary ether (73 mg, 52% yield). ¹H-NMR (CDCl₃): δ 8.10 (m, 1 H), 7.88 (m, 1 H), 7.79 (m, 1 H), 7.61 (m, 1 H), 7.31-7.27 (m, 3 H), 7.20 (m, 1 H), 7.12 (m, 1 H), 7.04 (m, 1 H), 7.00 (m, 2 H), 6.89 (m, 1 H), 6.82 (s, 1 H), 3.10 (s, 3 H). MS (ES): 541 [M+H]⁺.

Scheme 38



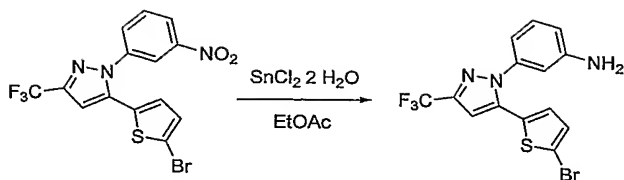
As depicted in Scheme 38, the 3-nitrophenyl substituted pyrazole **038SP10** was reduced with SnCl₂ to aniline, which coupled with 3-methylsulfonylphenyl boronic acid in the presence of PdCl₂dppf, Na₂CO₃ to afford the product **038SP12**.

Example 92

4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(2-morpholinoethyl)benzamide

Example 92a

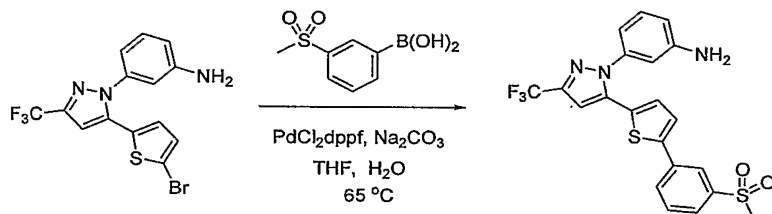
Preparation of 3-(5-(5-bromothiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)aniline



To a solution of 5-(5-bromothiophen-2-yl)-1-(3-nitrophenyl)-3-(trifluoromethyl)-1H-pyrazole (0.40 g, 0.96 mmol), prepared in a manner similar to that described in Example 1b, and stannous (II) chloride dihydrate (1.08 g, 4.78 mmol) was dissolved in 10.0 mL of ethyl acetate. The mixture was stirred at room temperature for overnight. The solvent was then evaporated *in vacuo*. The residue was taken in a mixture of DCM and 1 N aqueous NaOH and stirred for 10 minutes. The organic layer was separated and the aqueous layer was extracted with DCM twice. The combined organic layer was dried with anhydrous Na₂SO₄ and concentrated *in vacuo*. The residue was purified by column chromatography (30% ethyl acetate in hexane) providing the product aniline (327 mg, 88% yield). ¹H-NMR (CDCl₃): δ 7.26 (m, 1 H), 6.90 (m, 1 H), 6.76 (m, 5H), 3.84 (s, 2 H).

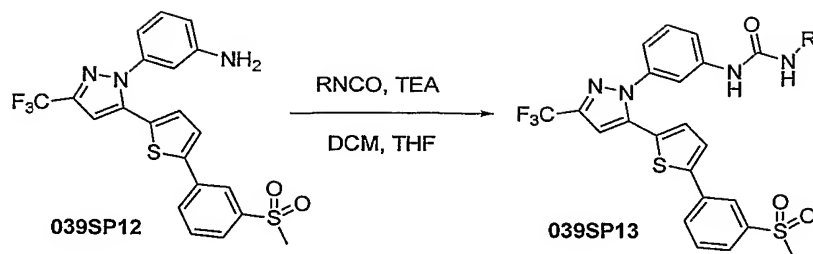
Example 92b

Preparation of 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)aniline



To a solution of the 3-(5-(5-bromothiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)aniline (1.55 g, 4.0 mmol) in anhydrous THF (20.0 mL) was added 3-(methylsulfonyl)phenylboronic acid (0.88 g, 4.4 mmol), PdCl₂dppf (163 mg, 0.20 mmol), Na₂CO₃ (0.85 g, 8.0 mmol) and water (2.0 mL). The reaction mixture was heated to reflux at 55 °C under nitrogen atmosphere for 15 hours. It was cooled off and passed through a pad of celite. The solvent was evaporated *in vacuo* and the resulting residue was purified by column chromatography (50% ethyl acetate in hexane), providing the product (778 mg, 42%). ¹H-NMR (Acetone-d₆): δ 7.98 (m, 1 H), 7.78 (m, 2 H), 7.55 (m, 2 H), 7.47 (m, 1 H), 7.41 (m, 1 H), 7.28 (m, 1 H), 7.11 (m, 1 H), 7.02 (m, 1 H), 6.97 (m, 1 H), 5.49 (s, 2 H), 3.05 (s, 3 H). MS (ES): 464 [M+H]⁺.

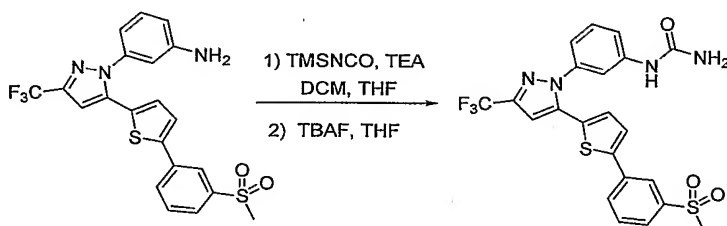
Scheme 39



As depicted in Scheme 39, the aniline **039P12** was treated with alkyl isocyanate in the presence of triethylamine to afford urea **039SP13**.

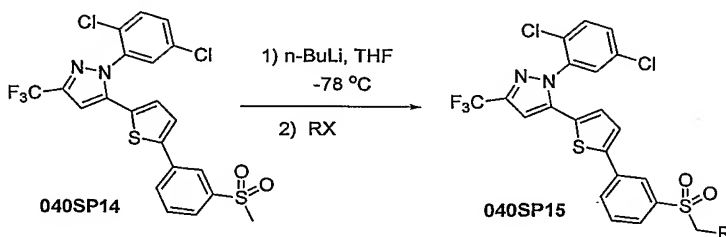
Example 93

- 5 *Preparation of 1-(3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)phenyl)urea.*



- To a solution of the 3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)aniline in anhydrous DCM (1.0 mL) and THF (3.0 mL) was added trimethylsilyl isocyanate (112 mg, 0.85 mmol) and triethyl amine (29 mg, 0.28 mmol). The reaction mixture was stirred under nitrogen atmosphere for overnight. A 1.0 M solution of tetra-butylammonium fluoride (1.42 mL, 1.42 mmol) in THF was added and the mixture was stirred at room temperature for overnight. The solvent was evaporated *in vacuo* and the resulting residue was purified by HPLC, providing the urea product (70 mg, 49%). ¹H-NMR (Acetone-d₆): δ8.56 (s, 1 H), 8.13 (m, 1 H), 7.98 (m, 1 H), 7.91 (m, 1 H), 7.69 (m, 1 H), 7.60 (m, 1 H), 7.49 (m, 1 H), 7.20 (m, 1 H), 7.17 (m, 1 H), 6.44 (br, 2 H), 3.18 (s, 3 H). MS (ES): 507 [M+H]⁺.

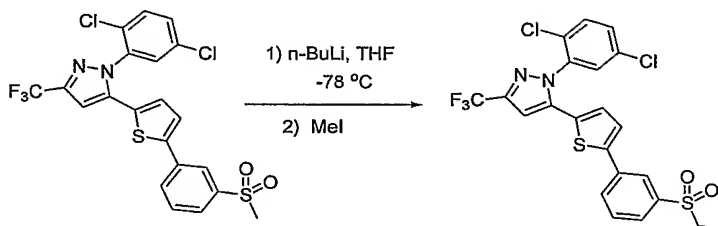
Scheme 40



- 20 As depicted in Scheme 40, the methylsulfonyl substituted pyrazole **040SP14** was treated with n-butyl lithium and then alkyl halide to afford the alkyl sulfonyl substituted pyrazole **040SP15**.

Example 94

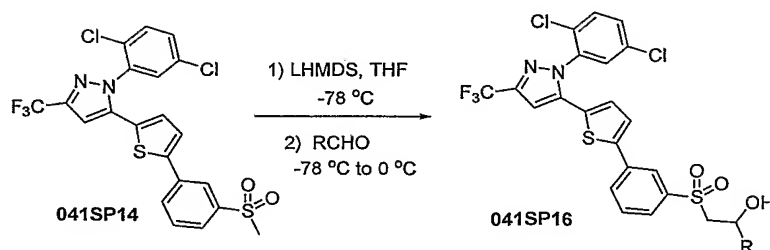
Preparation of 1-(2,5-dichlorophenyl)-5-(5-(3-(ethylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole.



1-(2,5-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole (0.5 g, 0.97 mmol), prepared as described in Example 1c, was dissolved in anhydrous THF (8.0 mL) and cooled at -78 °C under nitrogen atmosphere. To this solution a 1.6 M solution n-BuLi (0.78 mL, 1.28 mmol) in hexane was added. The mixture was stirred at -78 °C for 15 min. and iodomethane (608 mg, 4.28 mmol) was added and it was stirred for overnight while it warmed up to room temperature. The reaction was quenched carefully with water and the product was extracted with ethyl acetate. The organic layer was washed with brine and water and dried over anhydrous Na₂SO₄ and concentrated *in vacuo*. The residue was purified by column chromatography (50% ethyl acetate in hexane), providing the product (153 mg, 30%). ¹H-NMR (CDCl₃): δ 8.04 (m, 1 H), 7.83 (m, 1 H), 7.76 (m, 1 H), 7.60 (m, 1 H), 7.51 (m, 2 H), 7.26 (m, 1 H), 6.90 (s, 1 H), 6.87 (m, 1 H), 3.15 (q, J = 7.5 Hz, 2 H), 1.31 (t, J = 7.5 Hz, 3 H). MS (ES): 531 [M+H]⁺.

The following compounds are prepared essentially according to the previous examples:

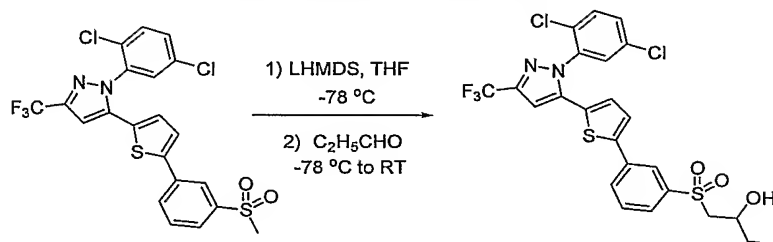
- 1-(2,5-dichlorophenyl)-5-(5-(3-(propylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole. ¹H-NMR (CDCl₃): δ 7.73 (m, 1 H), MS (ES): 545 [M+H]⁺.
- 1-(2,5-dichlorophenyl)-5-(5-(3-[(1,1-dimethylethyl)sulfonyl]phenyl)-2-thienyl)-3-(trifluoromethyl)-1H-pyrazole, MS(ES): 559 [M+H]⁺.

Scheme 41

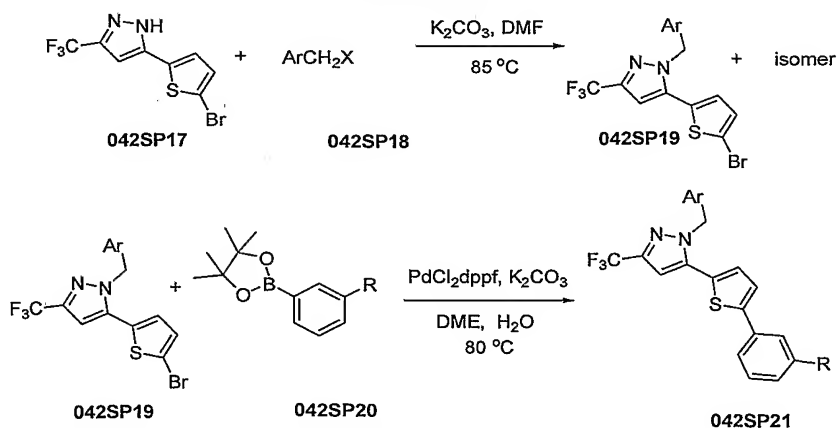
As depicted in Scheme 41, the methylsulfonyl substituted pyrazole **041SP14** was treated with LHMDS and then an aldehyde to afford the alcohol **041SP16**.

Example 95

Preparation of 1-(3-(5-(1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenylsulfonyl)butan-2-ol.



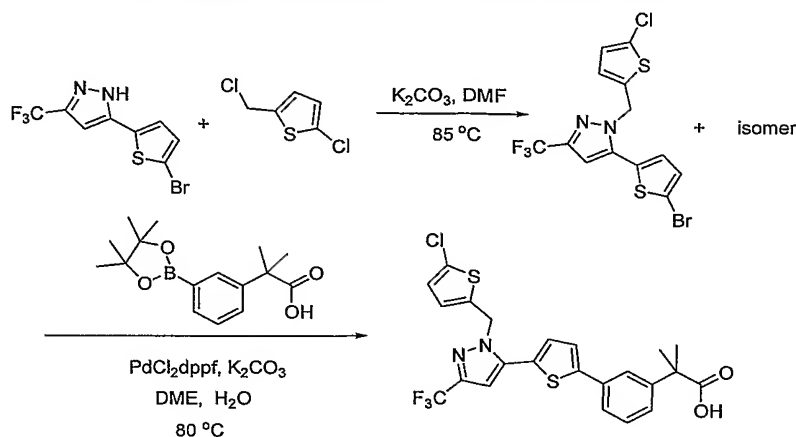
- 5 To a solution of 1-(2,5-dichlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole (0.20 g, 0.39 mmol) in anhydrous THF (4.0 mL) cooled at -78 °C under nitrogen atmosphere was added slowly a 1.6 M solution LHMDS (0.27 mL, 0.43 mmol) in THF. The mixture was stirred at -78 °C for 15 min. and propionaldehyde (45 mg, 0.77 mmol) was added and it was stirred for overnight while it warmed up to room temperature. The reaction was quenched with
- 10 water and the product was extracted with ethyl acetate. The organic layer was washed with brine and water and dried over anhydrous Na₂SO₄ and concentrated *in vacuo*. The residue was purified by column chromatography (60% ethyl acetate in hexane), providing the product (156 mg, 70%). ¹H-NMR (Acetone-d₆): δ8.12 (m, 1 H), 7.98 (m, 1 H), 7.90 (m, 1 H), 7.88 (m, 1 H), 7.77 (m, 2 H), 7.68 (m, 1 H), 7.58 (m, 1 H), 7.28 (s, 1 H), 7.20 (m, 1 H), 4.02 (m, 1 H), 3.39 (m, 2 H), 1.58 (m, 1 H), 1.48 (m, 1 H),
- 15 0.9 (t, J = 7.1 Hz, 3 H). MS (ES): 575 [M+H]⁺.

Scheme 42

- As depicted in Scheme 42, pyrazole **042SP17** prepared as described in Example 1b was treated with alkyl halide **042SP18** and K₂CO₃ at 85 °C to afford 5-(5-bromothiophen-2-yl)-1-aryl-1H-pyrazole **042SP19**, which was coupled with an aryl boronic ester **042SP20** in the presence of PdCl₂(dppf), K₂CO₃, resulting in the pyrazole **042SP21**.
- 20

Example 96

Preparation of 2-(3-(5-(1-((5-chlorothiophen-2-yl)methyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenyl)-2-methylpropanoic acid

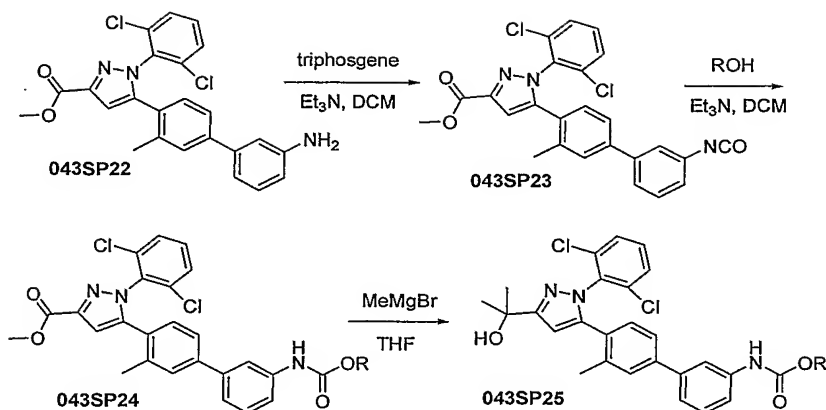


5 5-(5-bromothiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole (3.23 g, 10.88 mmol), prepared in a manner similar to that described in Example 1b, was dissolved in anhydrous DMF (40 mL). To this solution was added 2-chloro-5-(chloromethyl)thiophene (2.0 g, 11.97 mmol) and K_2CO_3 (2.25 g, 16.32 mmol). The reaction mixture was heated at 85 °C under nitrogen atmosphere for overnight. The solvent was evaporated and the resulting residue was taken into ethyl acetate. The reaction mixture was washed
10 with water and brine and dried over anhydrous Na_2SO_4 . It was concentrated *in vacuo*. The residue was purified by column chromatography (10% ethyl acetate in hexane), providing the product 5-(5-bromothiophen-2-yl)-1-((5-chlorothiophen-2-yl)methyl)-3-(trifluoromethyl)-1H-pyrazole (1.39 g, 30%). 1H -NMR ($CDCl_3$): δ 7.11 (m, 1 H), 6.90 (m, 1 H), 6.75 (m, 1 H), 6.67 (m, 1 H), 6.61 (s, 1 H), 5.46 (s, 2 H). The above product was coupled with an aryl boronic ester in a manner similar to that described in
15 Example 1c, providing the title compound (161 mg, 45%). 1H -NMR ($CDCl_3$): δ 7.63 (s, 1 H), 7.50 (m, 1 H), 7.40 (m, 2 H), 7.32 (m, 1 H), 7.12 (m, 1 H), 6.74 (m, 1 H), 6.69 (m, 1 H), 6.66 (s, 1 H), 5.54 (s, 2 H), 1.66 (s, 6 H). MS (ES): 511 $[M+H]^+$.

The following compounds are prepared essentially according to the previous examples:

- 2-(3-(5-(1-(2,4-difluorobenzyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)phenyl)-2-methylpropanoic acid. MS (ES): 507 $[M+H]^+$.
- 1-(5-(5-(1-(2,4-difluorobenzyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)thiophen-2-yl)pyridin-2-yl)piperazine. MS (ES): 506 $[M+H]^+$.
- 2-(1-(2,4-difluorobenzyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 489 $[M+H]^+$.

Scheme 43



As depicted in Scheme 43, the aniline **043SP22** was treated with triphosgene and triethylamine to afford isocyanate **043SP23**, which was reacted with alcohol, providing the carbamate **043SP24**. The carbamate **043SP24** was treated with MeMgBr to produce the carbinol **043SP25**.

5

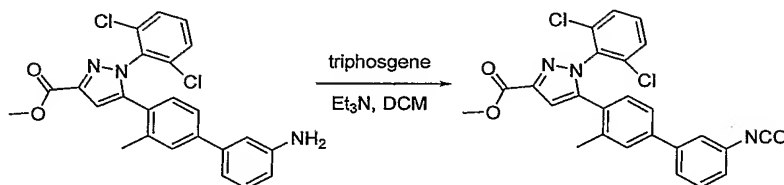
Example 97

3-(4-methylpiperazin-1-yl)propyl 4'-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3'-methylbiphenyl-3-ylcarbamate

Example 97a

Preparation of methyl 1-(2,6-dichlorophenyl)-5-(3'-isocyanato-3-methylbiphenyl-4-yl)-1H-pyrazole-3-carboxylate

10



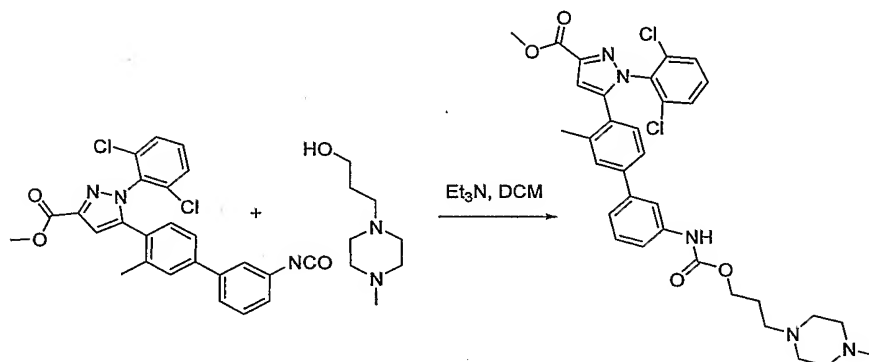
methyl 5-(3'-amino-3-methylbiphenyl-4-yl)-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxylate (0.276 g, 0.61 mmol) was dissolved in anhydrous DCM (6.0 mL) and cooled off under nitrogen atmosphere at 0 °C with an ice /water bath. To this solution was added triethyl amine (74 mg, 0.73 mmol) and triphosgene (181 mg, 0.61 mmol). The reaction mixture was stirred for 4 hours while it warmed up to room temperature. It was quenched carefully with water and the reaction mixture was extracted with DCM. The organic layer was washed with water and brine and dried over anhydrous Na₂SO₄. The residue was concentrated *in vacuo*, providing the crude product isocyanate, which was used for the next reaction without purification.

15

20

Example 97b

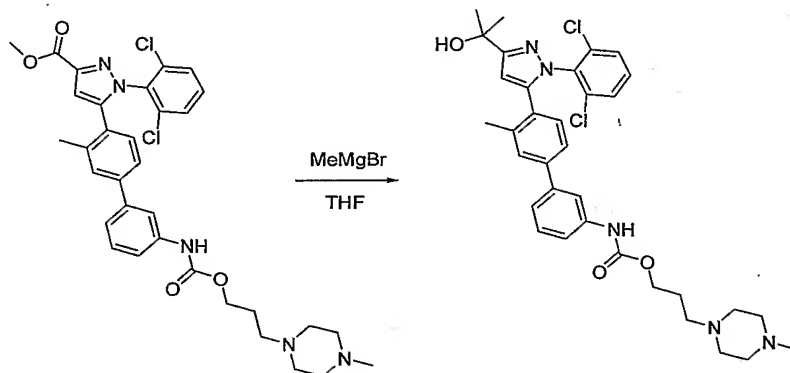
Preparation of methyl 1-(2,6-dichlorophenyl)-5-(3-methyl-3'-((3-(4-methylpiperazin-1-yl)propoxy)carbonylamino)biphenyl-4-yl)-1H-pyrazole-3-carboxylate



To a solution of the crude isocyanate in anhydrous DCM (6.0 mL) was added triethyl amine (74 mg, 0.73 mmol) and 3-(4-methylpiperazin-1-yl)propan-1-ol (97 mg, 0.61 mmol). The reaction mixture was stirred under nitrogen atmosphere at room temperature for overnight. It was concentrated *in vacuo*. The crude product carbamate was used for the next reaction without purification.

Example 97c

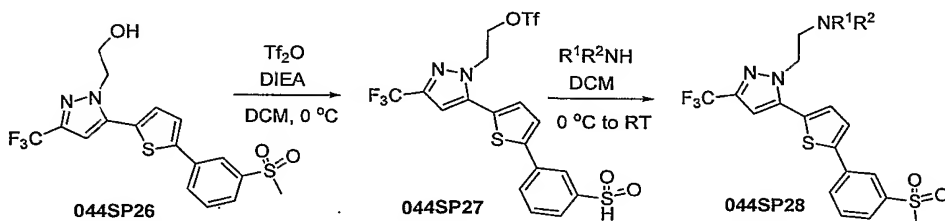
Preparation of 3-(4-methylpiperazin-1-yl)propyl 4'-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3'-methylbiphenyl-3-ylcarbamate



To a solution of the crude carbamate in anhydrous THF (6.0 mL) cooled off under nitrogen atmosphere at -78 °C was added a 3.0 M solution of MeMgBr (1.0 mL, 3.0 mmol). It was stirred at -78 °C for 30 minutes and the cold bath was then removed. The mixture was stirred for 4 hours while it warmed up to room temperature. It was quenched with water and aq. NH₄Cl. The reaction mixture was extracted with ethyl acetate. The organic layer was washed with brine and water and dried over anhydrous Na₂SO₄. The solvent was evaporated *in vacuo* and the residue was purified by HPLC,

providing the product (74 mg, 19% over 3 steps). $^1\text{H-NMR}$ (CDCl_3): δ 7.68 (br, 1 H), 7.45 (m, 1 H), 7.33 (m, 3 H), 7.23 (m, 3 H), 7.10 (m, 1 H), 6.64 (s, 1 H), 6.46 (s, 1 H), 4.22 (m, 1 H), 2.66 (s, 1 H), 2.46 (br, 11 H), 2.29 (s, 3 H), 1.87 (m, 2 H), 1.70 (s, 6 H), 1.61 (s, 3 H). MS (ES): 636 $[\text{M}+\text{H}]^+$.

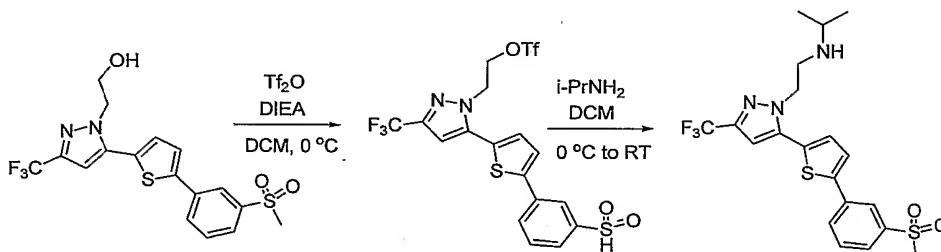
Scheme 44



As depicted in Scheme 44, the hydroxyethyl substituted pyrazole **044P26** was treated with triflic anhydride and DIEA to afford the triflate **044SP27**, which was reacted with amine, resulting in the aminoethylsubstituted pyrazole **044SP28**.

Example 98

Preparation of N-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)propan-2-amine

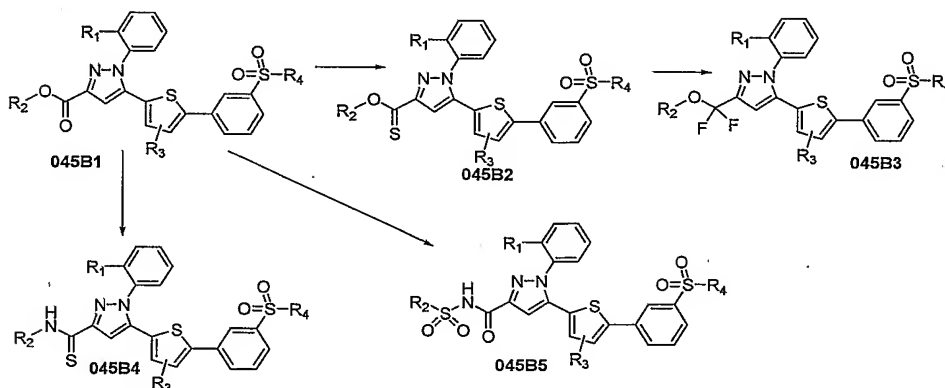


2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanol (208 mg, 0.50 mmol), prepared in a manner similar to that describes Example 1c, was dissolved in anhydrous DCM (4.0 mL) and cooled off at 0 °C under nitrogen atmosphere with an ice/water bath. To this solution was added DIEA (97 mg, 0.75 mmol) and triflic anhydride (169 mg, 0.60 mmol). The reaction mixture was stirred at 0 °C for an hour and isopropyl amine (148 mg, 2.5 mmol) was added. It was stirred for overnight while it warmed up to room temperature. The reaction mixture was concentrated *in vacuo* and the residue was purified by HPLC, providing the product amine (148 mg, 65%). $^1\text{H-NMR}$ (CDCl_3): δ 8.17 (m, 1 H), 7.90 (m, 1 H), 7.87 (m, 1 H), 7.64 (m, 1 H), 7.44 (m, 1 H), 7.30 (m, 1 H), 6.67 (s, 1 H), 4.39 (m, 2 H), 3.15 (m, 2 H), 3.13 (s, 3 H), 2.79 (m, 1 H), 1.03 (d, 6 H). MS (ES): 458 $[\text{M}+\text{H}]^+$.

The following compounds are prepared essentially according to the previous examples:

- N-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)cyclopentanamine. MS (ES): 484 $[M+H]^+$.
- N-benzyl-N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanamine. MS (ES): 520 $[M+H]^+$.
- N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-N-(thiophen-2-ylmethyl)ethanamine. MS (ES): 526 $[M+H]^+$.
- N-(furan-2-ylmethyl)-N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanamine. MS (ES): 510 $[M+H]^+$.
- N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-N-(pyridin-4-ylmethyl)ethanamine. MS (ES): 521 $[M+H]^+$.
- 1-(2-(1H-imidazol-1-yl)ethyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole. MS (ES): 467 $[M+H]^+$.
- 1-methyl-4-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)piperazine. MS (ES): 499 $[M+H]^+$.
- 1-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)pyrrolidin-3-ol. MS (ES): 486 $[M+H]^+$.

Scheme 45



Additional methods for function group conversion on the pyrazole ring are illustrated in Scheme 45. Ester substituted pyrazole compound, such as formula (**045B1**) can be converted to thioesters, such as compound (**045B2**) using standard techniques that use known reagents of thiation such as Lawesson's reagent. Thioester (**045B2**) can be converted to difluoroethers compounds, such as formula (**045B3**), with the aid of known reagents of gem difluorination such as DAST. Ester substituted pyrazole compound (**045B1**) can also be converted to amides, thioamides, such as compound (**045B4**),

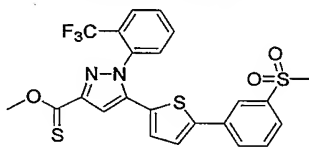
carboxylic acids, sulfonamides such as compound (045B5), and amines using techniques that are readily apparent to one skilled in the arts.

Example 99

3-(Difluoro-methoxy-methyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole

Example 99a

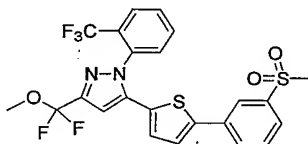
Preparation of 5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carbothioic acid O-methyl ester



To a 50 mL round bottom flask attached with condenser was added 5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carboxylic acid methyl ester (326 mg, 644 μ mol), Lawesson's reagent (520 mg, 1.29 mmol) and anhydrous toluene (23 mL). The reaction solution was stirred at reflux for 1 day. The reaction solution was concentrated *in vacuo*, and the crude material was chromatographed through a 25 g SiO₂ column using a gradient of 100 % Hx to 50 % EtOAc to afford 302 mg (90 % yield) of the title compound. MS (ES) 523.3 [M+H]⁺, 545.0 (M+Na)⁺.

Example 99b

Preparation of 3-(Difluoro-methoxy-methyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole



To a dry, N₂ purged round bottom flask was added 5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carbothioic acid O-methyl ester (280 mg, 535 μ mol) in a solution of anhydrous DCM (15 mL). To the reaction solution was added DAST (200 mL, 1.53 mmol), and the reaction solution was stirred at room temperature for 14 hrs. The reaction solution was diluted with DCM (100 mL) and washed with aq. NaCl, partitioned, dried over Na₂SO₄, filtered, and concentrated *in vacuo*. The crude residue was chromatographed through a 25 g SiO₂ column using a mobile phase of 100 Hx to 50 % EtOAc to afford 64 mg (23 % yield) of the title compound. ¹H NMR (400 MHz, CDCl₃) δ 8.02 (s, 1H), 7.80-7.89 (m, 2H), 7.66-7.75 (m, 3H), 7.50-7.58 (m, 2H), 7.18 (d,

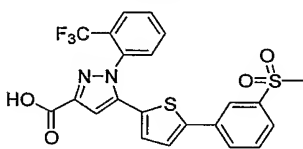
1H), 6.83 (s, 1H), 6.74 (d, 1H), 3.47 (s, 3H), 3.06 (s, 3H); ¹⁹F NMR (400 MHz, CDCl₃) δ - 61, -71 ppm. MS (ES) 529.3 [M+H].

Example 100

N-[5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carbonyl]-methanesulfonamide

Example 100a

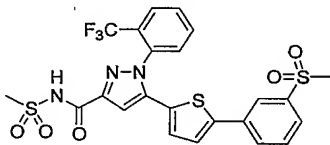
5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carboxylic acid



To a 100 mL round bottom flask attached with condenser was added 5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carboxylic acid ethyl ester (2.52g, 4.98 mmol), 1N aq NaOH (30 mL), and MeOH (25 mL). The reaction solution was stirred at 55 °C for 1.5 hr prior to TLC analysis. The reaction solution was diluted with EtOAc (200 mL), poured into a separatory funnel and the organic phase was partitioned. The aqueous phase was neutralized by the addition of aq 1 N HCl and extracted with EtOAc (70 mL x 2). The combined organic phase was dried over Na₂SO₄, filtered into a round bottom flask and concentrated on the Rotavapor. The crude residue was chromatographed thru a 25 g SiO₂ column using a mobile phase gradient of 100% Hx to 85 % EtOAc to afford 1.35 g (55 % yield) title compound. MS (ES) 493.1 [M+H]⁺.

Example 100b

N-[5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carbonyl]-methanesulfonamide

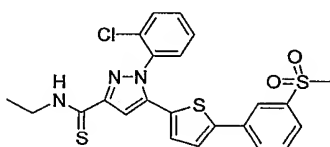


To round bottom flask was added 5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-1-(2-trifluoromethyl-phenyl)-1H-pyrazole-3-carboxylic acid (302 mg, 615 μmol), oxalyl chloride (0.54 mL), anhydrous DCM (10 mL), and anhydrous DMF (100 μL). The reaction solution was stirred at room temperature for approximately 1 hr prior to concentration *in vacuo*. The resulting crude acid chloride intermediate was used in the next reaction without further purification. To a glass vial was added acid chloride (615 μmol theoretical), methanesulfonamide (117 mg, 1.23 mmol), 1, 2-dichloroethane (9 mL), DIEA (200 μL), and DMAP (10 mg). The reaction solution was stirred at 45 °C for 3 hrs. The reaction

solution was diluted with DCM (60 mL) and transferred to a separatory funnel. The solution was washed with aq NH_4Cl (50 mL x 2) and with aq NaCl (50 mL). The organic phase was dried over Na_2SO_4 , filtered, concentrated on the Rotavapor and chromatographed through a 25 g SiO_2 column using a mobile phase gradient of 100 % Hx to 70 % EtOAc to afford 182 mg (52 % yield) of the title compound. ^1H NMR (400 MHz, CDCl_3) δ 9.07 (s, 1H), 8.02 (s, 1H), 7.91 (m, 1H), 7.84 (d, 1H), 7.74-7.80 (m, 2H), 7.69 (d, 1H), 7.55 (t, 1H), 7.48 (m, 1H), 7.23 (s, 1H), 7.21 (d, 1H), 6.77 (d, 1H), 3.42 (s, 3H), 3.07 (s, 3H); ^{19}F NMR (400 MHz, CDCl_3) δ -60.5 ppm MS (ES) 570.2 $[\text{M}+\text{H}]^+$.

Example 101

Preparation of 1-(2-Chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carbothioic acid ethylamide

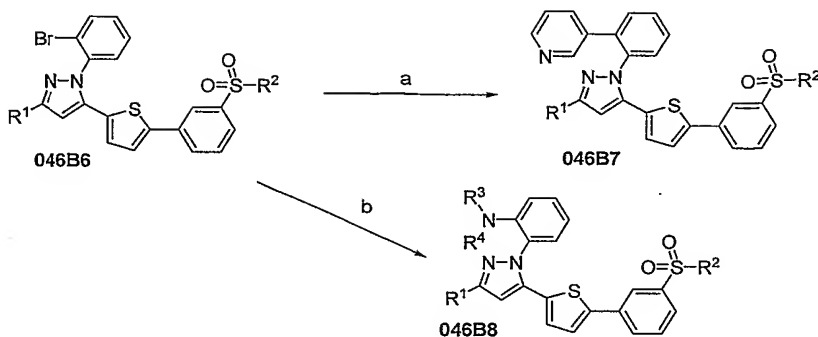


To a dry, N_2 purged 50 mL round bottom flask attached with condenser was added 1-(2-Chloro-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-1H-pyrazole-3-carboxylic acid ethylamide (100 mg, 206 μmol), Lawesson's reagent (200 mg, 494 μmol), and anhydrous toluene (8 mL). The reaction solution was allowed to stir at reflux for 14 hrs. The reaction solution was allowed to cool to room temperature prior to addition of a 1:1 mixture of benzene and Et_2O . The resulting precipitate was removed by vacuum filtration through a Buchner funnel. The filtrate was concentrated on the Rotavapor and the crude residue was chromatographed through a 12 g SiO_2 column using a mobile phase gradient of 100 % Hx to 50 % EtOAc to afford 39 mg (38 % yield) of the title compound. ^1H NMR (400 MHz, CDCl_3) δ 8.68 (br s, 1H), 8.02 (s, 1H), 7.83 (d, 1H), 7.72 (d, 1H), 7.48-7.70 (m, 5H), 7.42 (s, 1H), 7.22 (d, 1H), 6.83 (d, 1H), 3.87 (m, 2H), 3.07 (s, 3H), 1.36 (t, 3H). MS (ES) 502.3, 504.3 $[\text{M}+\text{H}]^+$.

The following compound was prepared in a similar manner to that described above:

- 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carbothioamide, MS (ES) 556.0, 558.0 $[\text{M}+\text{H}]^+$

Scheme 46

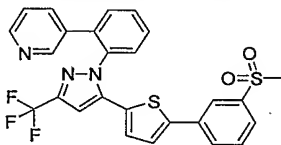


(a) 3-Pyr-boronic acid, PdCl_2dppf , K_2CO_3 ; (b) $\text{R}_3\text{R}_4\text{NH}$, Pd cat

Additional methods for A-ring substitution which use metal catalyzed carbon-carbon bond coupling methodology are illustrated in Scheme 46. The pyrazole-phenyl bromide intermediate (**046B6**) can be reacted under Suzuki coupling conditions to prepare the *ortho*-aryl products, such as compound (**046B7**). The aryl bromide intermediate (**046B6**) can also be used in Buchwald amination reaction to prepare alkylamino substituted compounds, such as formula (**046B8**).

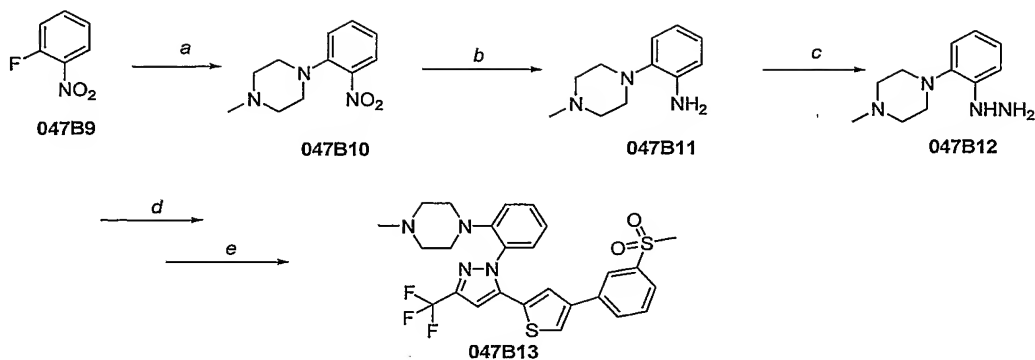
Example 102

Preparation of 3-(2-{5-[5-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl)-pyridine



To a 50 mL round bottom flask attached with condenser was added 1-(2-Bromo-phenyl)-5-[5-(3-methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-1H-pyrazole (prepared following the described in Example 1c) (110 mg, 210 μmol), 3-pyridylboronic acid (31 mg, 525 μmol), PdCl_2dppf (25 mg, 10 mol %), K_2CO_3 (58 mg, 410 μmol), 1,4-dioxane (8 mL) and H_2O (1.5 mL). The reaction solution was allowed to stir at 75 $^\circ\text{C}$ for 20 hrs. The reaction solution was diluted with EtOAc (150 mL) and transferred to a separatory funnel and washed with aq NH_4Cl (100 mL) and aq NaCl (100 mL). The organic phase was dried over Na_2SO_4 , filtered, concentrated on the Rotavapor and chromatographed through a 25 g SiO_2 column using a mobile phase gradient of 100 % Hx to 90 % EtOAc to afford 45 mg (41 % yield) of the title compound. ^1H NMR (400 MHz, $\text{DMSO}-d_6$) δ 8.41 (m, 1H), 7.99 (m, 2H), 7.51-7.90 (m, 8H), 7.24 (s, 1H), 7.17-7.23 (m, 2H), 6.87 (d, 1H), 3.28 (s, 3H); ^{19}F NMR (400 MHz, $\text{DMSO}-d_6$) δ -61.2 ppm. MS (ES) 526.5 $[\text{M}+\text{H}]^+$.

Scheme 47



(a) 4-Me-piperazine, THF, reflux; (b) 30 psi H₂, 10 % Pd/C; (c) (i) NaNO₂, HCl, (ii) SnCl₂·2H₂O, HCl; (d) diketone, toluene; (e) Suzuki coupling

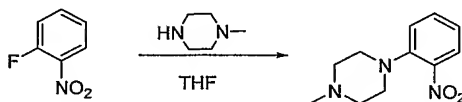
Additional methods for synthesizing substituted arylhydrazines, such as compound (047B12) are shown in Scheme 47. The hydrazines can be used to prepare pyrazole compounds, similar to those described in Example 1c, and the method in Scheme 47 is a complementary method to that described in Scheme 46. 2-Fluoro-nitrobenzene (047B9) can be reacted with alkylamines to undergo a S_NAr reaction to yield substituted aryl nitro compounds (047B10). The nitro intermediate (047B10) can be converted to the corresponding aniline (047B11) using known hydrogenation methods. The resulting aniline (047B11) can be converted to the arylhydrazine (047B12) by reaction through the diazonium salt followed by reduction. When these hydrazines are applied to the pyrazole synthesis methodology described in Example 1c, final pyrazole compounds containing larger and more complex aminoalkyl substituents, such as compound (047B13) are available.

Example 103

1-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl)-4-methyl-piperazine

Example 103a

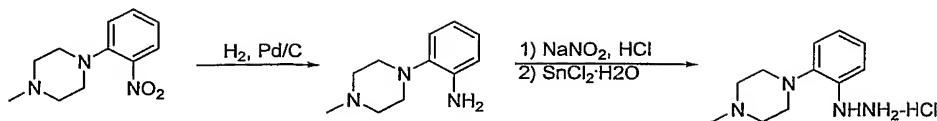
Preparation of 1-Methyl-4-(2-nitro-phenyl)-piperazine



To a Kontes glass tube was added 2-fluoro-nitrobenzene (3.34 g, 23.7 mmol), 1-methyl-piperazine (3.90 mL, 35.6 mmol), and anhydrous THF (10 mL). The tube was sealed and the reaction mixture was allowed to stir at 60 °C for 1 day. The reaction solution was diluted with EtOAc (150 mL), washed with aq NaHCO₃, dried over Na₂SO₄, filtered, and concentrated *in vacuo* to afford 5.07 g (97 % yield) of the title product. MS (ES) 222.3 [M+H]⁺.

Example 103b

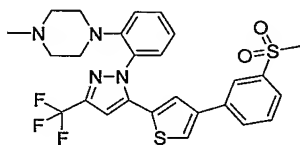
Preparation of 2-(4-Methyl-piperazin-1-yl)-phenylhydrazine-HCl



To a Parr Hydrogenation flask was added 1-Methyl-4-(2-nitro-phenyl)-piperazine (2.72 g, 12.3 mmol), EtOAc (50 mL), MeOH (50 mL). The flask was purged with dry N₂ for 5 min prior to addition of 10 % Pd/carbon (1.00 g). The flask was placed onto the Parr hydrogenation apparatus and exposed to H₂ at 30 psi. The reaction was allowed to shake under H₂ pressure for 2 hrs. The flask was vented and the solution was filtered through a silica gel padded Buchner funnel. The filtrate was concentrated *in vacuo* to afford 2.0g aniline product. The crude aniline was added to a 100 mL round bottom flask along with sodium nitrite (940 mg, 13.6 mmol), and conc. HCl (13 mL). The reaction was stirred at -10 °C for approximately 1 hr prior to addition of tin(II) chloride-dihydrate (10 g, 45 mmol) in a solution of conc. HCl (8 mL). The reaction solution was stirred at -10 °C for 1 hr. The solution was diluted with EtOAc (200 mL) and 2N aq NaOH was added until all tin byproduct was water soluble. The EtOAc phase was partitioned and the aq phase was extracted with EtOAc (150 x 2). The combined organic phase was dried over Na₂SO₄, filtered, and concentrated *in vacuo* to afford 1.69 g (79 % yield) of product. MS (ES) 237.3 [M+H]⁺, 259.3 (M+Na)⁺.

Example 103c

1-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl)-4-methyl-piperazine

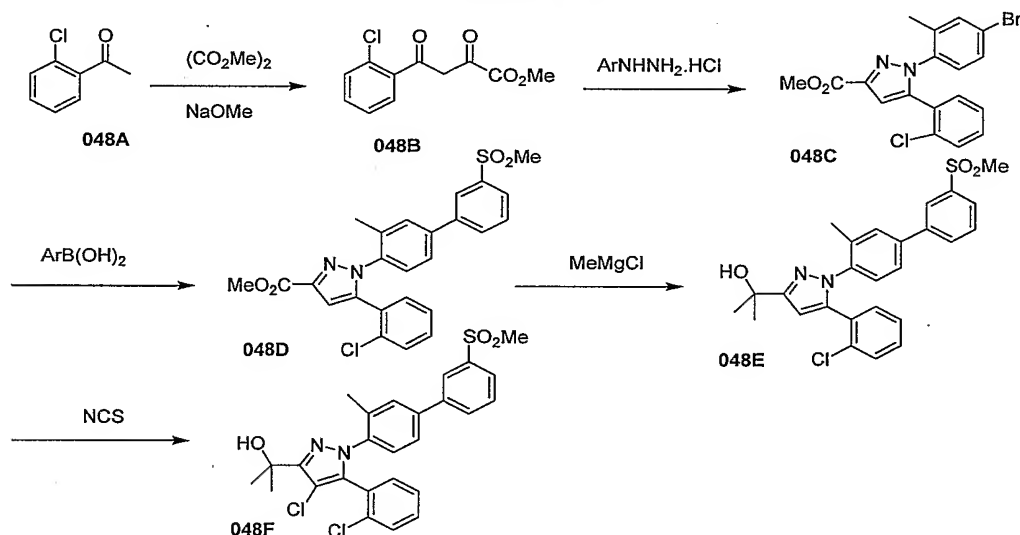


The compound 1-(2-{5-[4-(3-Methanesulfonyl-phenyl)-thiophen-2-yl]-3-trifluoromethyl-pyrazol-1-yl}-phenyl)-4-methyl-piperazine was prepared in a manner similar to that described in Example 1c by using 2-(4-Methyl-piperazin-1-yl)-phenylhydrazine-HCl. ¹H NMR (400 MHz, DMSO-*d*₆) δ 8.16 (s, 1H), 7.97-8.08 (m, 3H), 7.84 (d, 1H), 7.69 (t, 1H), 7.57 (t, 1H), 7.44-7.57 (m, 2H), 7.17-7.28 (m, 2H), 3.28 (s, 3H), 2.67 (br s, 2H), 2.03 (s, 3H), 1.86-2.14 (m, 6H); ¹⁹F NMR (400 MHz, DMSO-*d*₆) δ -61.1 ppm. MS (ES) 547.3 [M+H]⁺, 569.3 (M+Na)⁺.

The following compounds were synthesized in a manner similar to that described in Example 103:

- 3-{5-[1-[2-(4-methylpiperazin-1-yl)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide, MS (ES) 548.3 [M+H]⁺, 570.0 (M+Na)⁺
- 4-{2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}morpholine, MS (ES) 534.2 [M+H]⁺

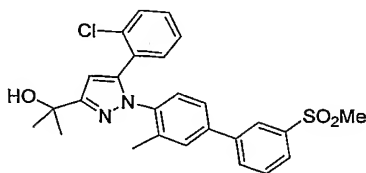
- 4-{2-[5-(4-bromo-2-thienyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}morpholine, MS (ES) 458.2, 460.2 $[M+H]^+$
- 5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-propylphenyl)-3-(trifluoromethyl)-1H-pyrazole, MS (ES) 491.2 $[M+H]^+$
- 5 • 1-[2-(1-methylethyl)phenyl]-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole, MS (ES) 491.4 $[M+H]^+$
- 1-methyl-4-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}methyl)piperazine, MS (ES) 560.8 $[M+H]^+$

Scheme 48

As depicted in Scheme 48, biphenyl pyrazole **048E** and **048F** were prepared from acetophenone **048A** in a manner similar to that described in Scheme 6.

Example 104

2-{5-(2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol



2-{5-(2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol was prepared in a manner similar to that as described in Example 8d by using 2'-chloroacetophenone. 1H -NMR ($CDCl_3$): δ 8.10 (s, 1H), 7.91 (m, 1H), 7.89 (m, 1H), 7.83 (m, 1H), 7.62

(m, 1H), 7.46 (d, 1H), 7.38 (d, 1H), 7.34-7.16 (m, 4H), 6.53 (s, 1H), 3.09 (s, 3H), 2.71 (s, 1H), 2.23 (s, 3H), 1.70 (s, 6H). MS(ES): 481 [M+H]⁺, 463 (M-OH).

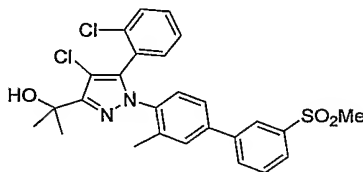
The following compounds are prepared essentially according to the previous examples:

- 5 • 5-((2-chlorophenyl)-1-(4-bromo-2-chlorophenyl)-1H-pyrazole-3-carboxylic acid methyl ester was prepared in a manner similar to that as described in Example 8b by using 4-(2-chlorophenyl)-2,4-dioxo-butyric acid methyl ester. MS(ES): 405 [M+H]⁺.
- 10 • 5-((2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazole-3-carboxylic acid methyl ester was prepared in a manner similar to that as described in Example 8c. by using 5-((2-chlorophenyl)-1-(4-bromo-2-chlorophenyl)-1H-pyrazole-3-carboxylic acid methyl ester. MS(ES): 481 [M+H]⁺.
- 15 • 2-{5-(2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol was prepared in a manner similar to that as described in Example 8d by using 5-((2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazole-3-carboxylic acid methyl ester. ¹H-NMR (CDCl₃): δ 8.10 (s, 1H), 7.91 (m, 1H), 7.89 (m, 1H), 7.83 (m, 1H), 7.62 (m, 1H), 7.46 (d, 1H), 7.38 (d, 1H), 7.34-7.16 (m, 4H), 6.53 (s, 1H), 3.09 (s, 3H), 2.71 (s, 1H), 2.23 (s, 3H), 1.70 (s, 6H). MS(ES): 481 [M+H]⁺, 463 (M-OH).
- 2-{1-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-5-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 20 • 2-{5-(2,6-dichlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 515 [M+H]⁺, 497 (M-OH)
- 2-{1-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-5-(2,6-dichlorophenyl)-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 535 [M+H]⁺, 517 (M-OH)
- 2-{5-(2,6-dichlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 25 • 2-{5-(2,3-dichlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 2-{5-(2,3-dichlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 515 [M+H]⁺, 497 (M-OH)
- 2-{1-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-5-(2,3-dichlorophenyl)-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 535 [M+H]⁺, 517 (M-OH)
- 30 • 2-[5-(2-chlorophenyl)-1-{3-methyl-5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 482 [M+H]⁺, 464 (M-OH)

- 2-{5-(2-chlorophenyl)-1-[3,5-dimethyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 495 [M+H]⁺, 477 (M-OH)
- 2-(5-(2-chloro-6-fluorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 485 [M+H]⁺.
- 5 • 2-(5-(2,3-difluorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 469 [M+H]⁺.
- 2-(5-(2-chloro-6-fluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 503 [M+H]⁺.
- 2-(5-(2,3-difluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 487 [M+H]⁺.
- 10 • 2-(5-(2-chloro-6-fluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 499 [M+H]⁺.
- 2-(5-(2,3-difluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 483[M+H]⁺.
- 15 • 2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-chloro-6-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 519[M+H]⁺.
- 2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,3-difluorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 503[M+H]⁺.
- 2-(1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 515[M+H]⁺.
- 20 • 2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 535[M+H]⁺.
- 2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 499[M+H]⁺.
- 25 • 2-(5-(2,6-dichlorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 515 [M+H]⁺.

Example 105

2-{4-chloro-5-(2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol



2-{4-chloro-5-(2-chlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol was prepared in a manner similar to that as described in Example 12. ¹H-NMR (CDCl₃): δ 8.08 (m, 1H), 7.91 (m, 1H), 7.80 (m, 1H), 7.62 (t, 1H), 7.46 (d, 1H), 7.43 (m, 1H), 7.35-7.25 (m, 5H), 7.13 (d, 1H), 3.18 (s, 1H), 3.08 (s, 3H), 2.29 (s, 3H), 1.76 (s, 3H). MS(ES): 515 [M+H]⁺, 497 (M-OH)

The following compounds are prepared essentially according to the previous examples:

- 2-{4-chloro-5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol: ¹H-NMR (CDCl₃): δ 8.10 (s, 1H), 7.91 (m, 1H), 7.81 (m, 1H), 7.64 (m, 1H), 7.53-7.33 (m, 8H), 3.22 (s, 1H), 3.08 (s, 3H), 1.77 (s, 6H). MS(ES): 501 [M+H]⁺, 483 (M-OH)
- 10 • 2-[4-chloro-5-(2-chlorophenyl)-1-{3-methyl-5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol, MS(ES): 516 [M+H]⁺, 498(M-OH)
- 2-{4-chloro-1-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-5-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 534 [M+H]⁺, 517 (M-OH)
- 2-{4-chloro-5-(2,6-dichlorophenyl)-1-[3-methyl-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 549 [M+H]⁺, 531 (M-OH)
- 15 • 2-{4-chloro-5-(2,6-dichlorophenyl)-1-[3-chloro-3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol, MS(ES): 569[M+H]⁺, 551(M-OH)
- 2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 533[M+H]⁺.
- 20 • 2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-chloro-6-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 553[M+H]⁺.
- 2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 533[M+H]⁺.
- 2-(4-chloro-5-(2,6-dichlorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 549[M+H]⁺.
- 25 • 2-(4-chloro-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)-phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 549[M+H]⁺.
- 2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 569[M+H]⁺.
- 30 • 2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 537 [M+H]⁺.
- 2-(4-chloro-5-(2,3-difluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 521 [M+H]⁺.

- 2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,3-difluorophenyl)-1H-pyrazol-3-yl)propan-2-ol. MS (ES): 537 [M+H]⁺.

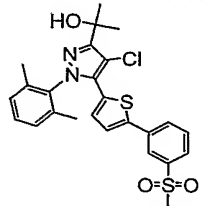
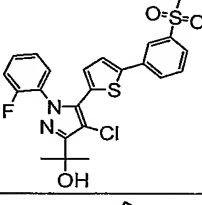
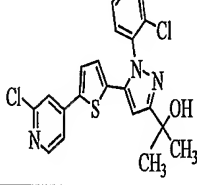
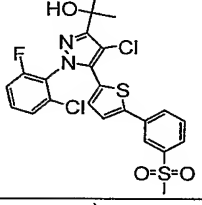
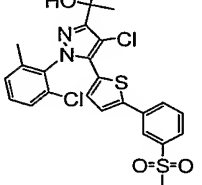
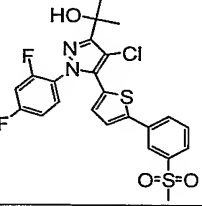
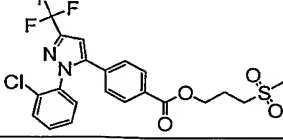
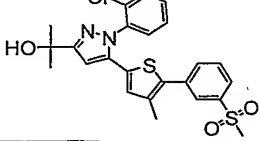
Example 106

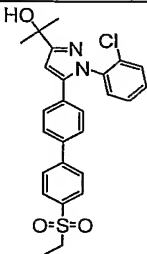
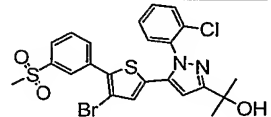
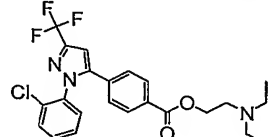
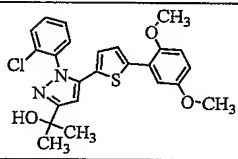
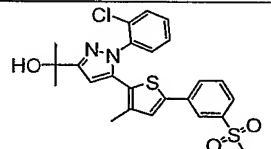
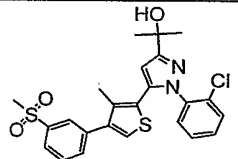
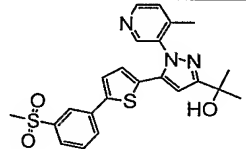
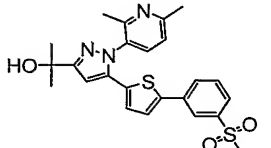
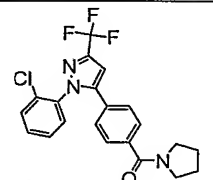
5 The following compounds the invention, in Tables 1 and 2, were prepared according to one of the previous Examples 1-105:

Table 1

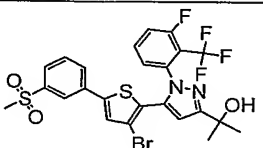
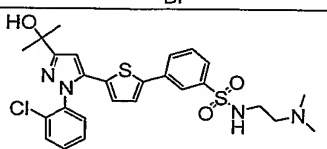
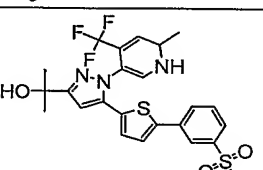
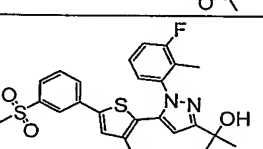
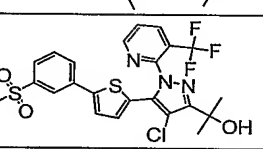
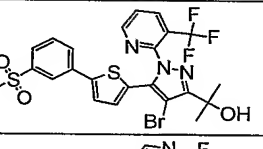
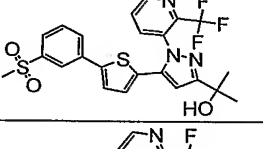
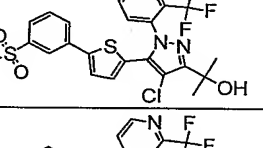
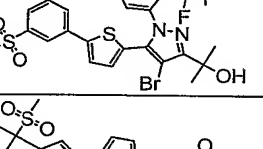
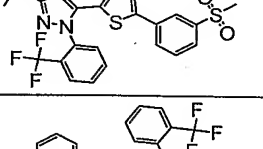
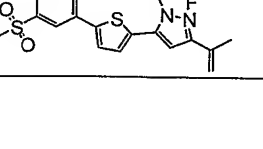
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2		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(3-(methylsulfonyl)phenyl)benzamide
3		2-(4-chloro-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
4		2-(4-chloro-1-(3-fluoro-2-methylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
5		2-(4-bromo-1-(3-fluoro-2-methylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
6		2-(4-chloro-1-(2,3-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
7		2-(1-(2-(difluoromethoxy)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
8		2-(1-(3-fluoro-2-(trifluoromethyl)phenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
9		2-(dimethylamino)ethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
10		2-(piperidin-1-yl)ethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
11		2-morpholinoethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate

12		3-(dimethylamino)propyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
13		2-(methylsulfonyl)ethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
14		2-(4-methylpiperazin-1-yl)ethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
15		2-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzamido)-N-methylbenzamide
16		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(2,2,2-trifluoro-1-(pyridin-3-yl)ethyl)benzamide
17		(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenyl)(3-hydroxypyrrolidin-1-yl)methanone
18		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N,N-dimethylbenzamide
19		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(2-(diethylamino)ethyl)-N-ethylbenzamide
20		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(2-(diethylamino)ethyl)-N-methylbenzamide
21		azetidin-1-yl(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenyl)methanone

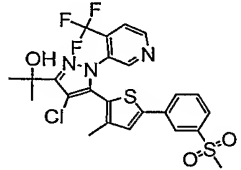
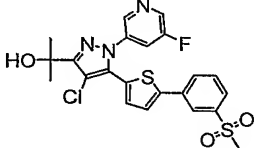
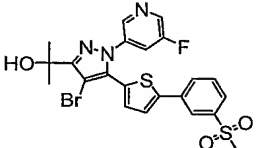
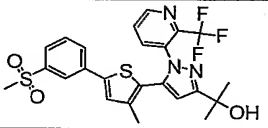
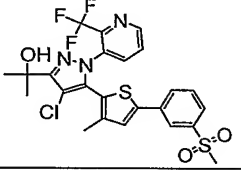
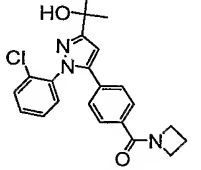
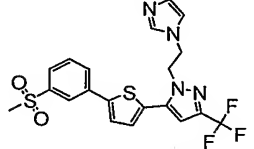
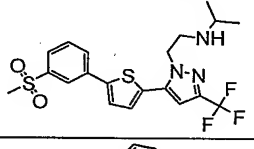
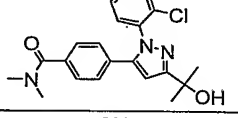
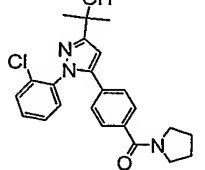
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23		2-(4-chloro-1-(2-fluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
24		2-(4-chloro-1-(2,6-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
25		2-(4-chloro-1-(2-chloro-6-fluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
26		2-(4-chloro-1-(2-chloro-6-methylphenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
27		2-(4-chloro-1-(2,4-difluorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
28		3-(methylsulfonyl)propyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
29		2-(1-(2-chlorophenyl)-5-(4-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol

30		2-(1-(2-chlorophenyl)-5-(4'-(ethylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
31		2-(5-(4-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
32		2-(diethylamino)ethyl 4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoate
33		2-(5-(4-bromo-3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
34		2-(1-(2-chlorophenyl)-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
35		2-(1-(2-chlorophenyl)-5-(3-methyl-4-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
36		2-(1-(4-methylpyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
37		2-(1-(2,6-dimethylpyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
38		(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)phenyl)(pyrrolidin-1-yl)methanone

39		2-(1-(3-fluoro-2-(trifluoromethyl)phenyl)-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
40		2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-methylphenyl)-1H-pyrazol-3-yl)propan-2-ol
41		2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chloro-3-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol
42		2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
43		2-(5-(3-chloro-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
44		2-(1-(2-chloro-3-fluorophenyl)-5-(3-chloro-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
45		2-(5-(3-chloro-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
46		4'-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-N-(2-(dimethylamino)ethyl)biphenyl-3-sulfonamide
47		2-(1-(2-chloro-3-fluorophenyl)-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
48		N-(1-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzoyl)pyrrolidin-3-yl)acetamide

49		2-(5-(3-bromo-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-fluoro-2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
50		3-(5-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)thiophen-2-yl)-N-(2-(dimethylamino)ethyl)benzenesulfonamide
51		2-(1-(6-methyl-4-(trifluoromethyl)-1,6-dihydropyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
52		2-(1-(3-fluoro-2-methylphenyl)-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
53		2-(4-chloro-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
54		2-(4-bromo-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
55		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
56		2-(4-chloro-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
57		2-(4-bromo-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
58		5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(2-(methylsulfonyl)propan-2-yl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazole
59		5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(prop-1-en-2-yl)-1-(2-(trifluoromethyl)phenyl)-1H-pyrazole

60		methyl 2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)acetate
61		2-(1-(5-fluoropyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
62		3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(2-(methylsulfonyl)propan-2-yl)-1H-pyrazol-1-yl)-2-(trifluoromethyl)pyridine
63		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(2-(methylsulfonyl)propan-2-yl)-1H-pyrazol-1-yl)-3-(trifluoromethyl)pyridine
64		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(prop-1-en-2-yl)-1H-pyrazol-1-yl)-3-(trifluoromethyl)pyridine
65		2-(1-(2-chlorophenyl)-5-(3-ethyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
66		2-(1-(2-chloro-3-fluorophenyl)-5-(3-ethyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
70		3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(prop-1-en-2-yl)-1H-pyrazol-1-yl)-4-(trifluoromethyl)pyridine
71		3-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(2-(methylsulfonyl)propan-2-yl)-1H-pyrazol-1-yl)-4-(trifluoromethyl)pyridine
72		2-(5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
73		2-(5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol

74		2-(4-chloro-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
75		2-(4-chloro-1-(5-fluoropyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
76		2-(4-bromo-1-(5-fluoropyridin-3-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
77		2-(5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
78		2-(4-chloro-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
80		azetidin-1-yl(4-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)phenyl)methanone
81		1-(2-(1H-imidazol-1-yl)ethyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazole
82		N-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)propan-2-amine
83		4-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-N,N-dimethylbenzamide
84		(4-(1-(2-chlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)phenyl)(pyrrolidin-1-yl)methanone

85		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-1-(pyrrolidin-1-yl)ethanone
86		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-1-(piperidin-1-yl)ethanone
87		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-1-morpholinoethanone
88		2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-(trifluoromethyl)pyridin-4-yl)-1H-pyrazol-3-yl)propan-2-ol
89		1-methyl-4-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)piperazine
90		1-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)pyrrolidin-3-ol
91		N-(2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethyl)cyclopentanamine
92		N-benzyl-N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanamine

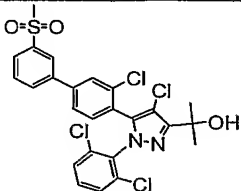
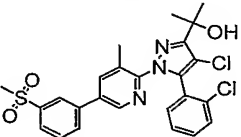
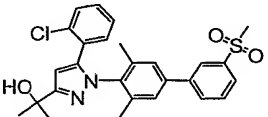
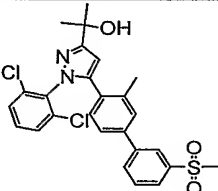
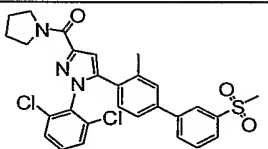
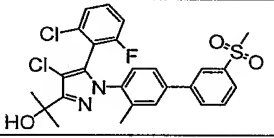
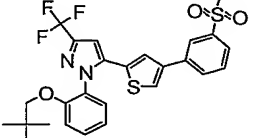
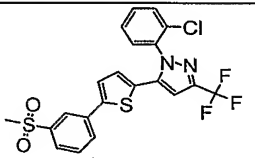
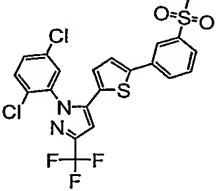
93		N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-N-(thiophen-2-ylmethyl)ethanamine
94		2-(4-chloro-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1-(3-(trifluoromethyl)pyridin-4-yl)-1H-pyrazol-3-yl)propan-2-ol
95		N-(furan-2-ylmethyl)-N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)ethanamine
96		N-methyl-2-(5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl)-N-(pyridin-4-ylmethyl)ethanamine
97		2-(1-(2-chlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
98		2-(1-(2-chlorophenyl)-5-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
99		2-(1-(3-fluoropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
100		2-(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
101		2-(4-chloro-1-(3-fluoropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol

102		2-(5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
103		2-(5-(2-chloro-6-fluorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
104		2-(5-(2,3-difluorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
105		2-(5-(2,6-dichlorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
106		2-(5-(2,3-dichlorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
107		2-(4-chloro-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
108		2-(5-(3'-(methylsulfonyl)biphenyl-4-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
109		2-(4-chloro-5-(3'-(methylsulfonyl)biphenyl-4-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
110		2-(4-chloro-5-(2-chlorophenyl)-1-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
112		2-(1-(3-chloropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol

113		2-(5-(2-chlorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
114		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
115		2-(5-(2-chloro-6-fluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
116		2-(5-(2,3-difluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
117		2-(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(4-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
118		methyl 1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazole-3-carboxylate
119		2-(1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
120		2-(5-(2-chloro-6-fluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
121		2-(5-(2,3-difluorophenyl)-1-(3-fluoro-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
122		2-(5-(2,6-dichlorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
123		1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-3-(prop-1-en-2-yl)-1H-pyrazole

124		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
125		2-(4-chloro-1-(3-chloropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
126		2-(1-(3,5-dichloropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
127		2-(4-chloro-1-(3,5-dichloropyridin-4-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
128		2-(4-chloro-1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
129		2-(1-(2-chlorophenyl)-5-(6-(3-(methylsulfonyl)phenyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
130		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-chloro-6-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol
131		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,3-difluorophenyl)-1H-pyrazol-3-yl)propan-2-ol
132		2-(4-chloro-1-(2-chlorophenyl)-5-(6-(3-(methylsulfonyl)phenyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
133		2-(1-(2,6-dichlorophenyl)-5-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol

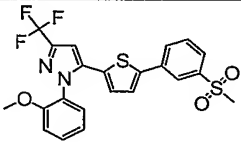
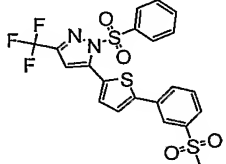
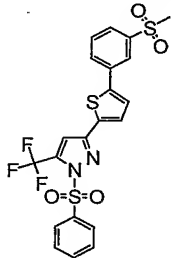
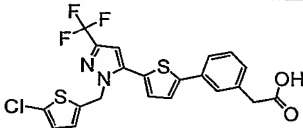
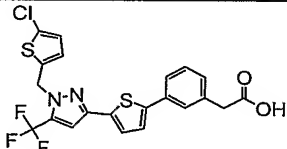
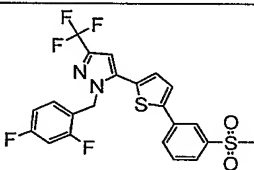
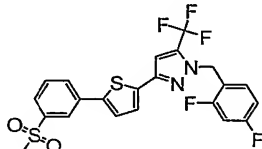
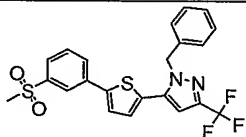
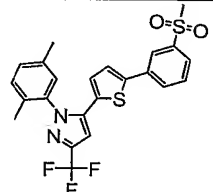
134		1-(2-chlorophenyl)-3-(2-methoxypropan-2-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazole
135		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,3-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
136		2-(5-(2,3-dichlorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
137		2-(1-(2,6-dichlorophenyl)-5-(3-methyl-5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-3-yl)propan-2-ol
138		2-(4-chloro-1-(2,6-dichlorophenyl)-5-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
139		2-(1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
140		2-(1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
141		2-(5-(2-chlorophenyl)-1-(3-methyl-5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
142		2-(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
143		(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)(pyrrolidin-1-yl)methanone

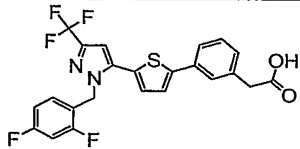
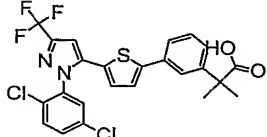
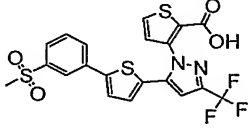
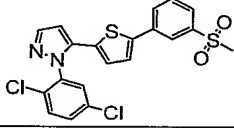
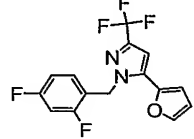

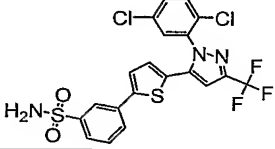
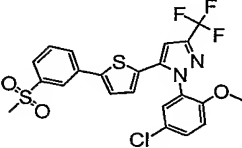
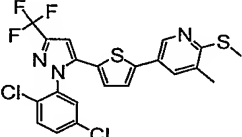
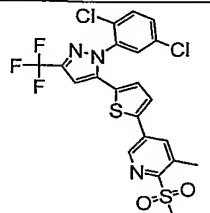
144		2-(4-chloro-5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
145		2-(4-chloro-5-(2-chlorophenyl)-1-(3-methyl-5-(3-(methylsulfonyl)phenyl)pyridin-2-yl)-1H-pyrazol-3-yl)propan-2-ol
146		2-(5-(2-chlorophenyl)-1-(3,5-dimethyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
147		2-(1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
148		(1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)(pyrrolidin-1-yl)methanone
149		2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
151		1-{2-[(2,2-dimethylpropyl)oxy]phenyl}-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
152		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
153		1-(2,5-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole

154		1-{2-[(2-methylpropyl)oxy]phenyl}-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
155		1-[2-(ethyloxy)phenyl]-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
156		1-{2-[(1-methylethyl)oxy]phenyl}-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
157		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl 2-methylpropanoate
158		2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]-3-(trifluoromethyl)pyridine
159		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl dimethylcarbamate
160		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
161		2-(ethylsulfonyl)-3-methyl-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)pyridine
162		2-(ethylthio)-3-methyl-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)pyridine
163		1-(2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole

164		1-(2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
165		2-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}pyridine
166		2-methyl-4-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}-1,3-thiazole
167		4-{2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethyl}morpholine
168		5-methyl-3-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}isoxazole
169		5-methyl-3-{[3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}isoxazole
170		2-{[3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}pyridine
171		2-methyl-4-{[3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}-1,3-thiazole
172		2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzoic acid

173		1-(2,4-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
174		1-(2,3-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
175		5-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}furan-2-carboxylic acid
176		4-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}benzoic acid
177		1-(2,5-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
178		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
179		1-[(5-chloro-2-thienyl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
180		1-[(5-chloro-2-thienyl)methyl]-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazole
181		3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-thienylcarbonyl)-5-(trifluoromethyl)-1H-pyrazole
182		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-thienylcarbonyl)-3-(trifluoromethyl)-1H-pyrazole

183		1-[2-(methyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
184		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylsulfonyl)-3-(trifluoromethyl)-1H-pyrazole
185		3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylsulfonyl)-5-(trifluoromethyl)-1H-pyrazole
186		(3-{5-[1-[(5-chloro-2-thienyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid
187		(3-{5-[1-[(5-chloro-2-thienyl)methyl]-5-(trifluoromethyl)-1H-pyrazol-3-yl]-2-thienyl}phenyl)acetic acid
188		1-[(2,4-difluorophenyl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
189		1-[(2,4-difluorophenyl)methyl]-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-5-(trifluoromethyl)-1H-pyrazole
190		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(phenylmethyl)-3-(trifluoromethyl)-1H-pyrazole
191		1-(2,5-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole

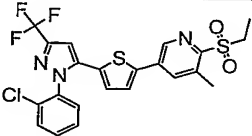
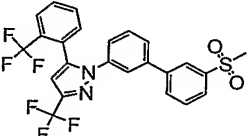
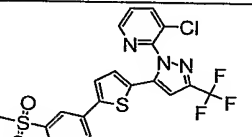
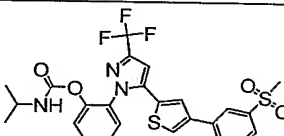
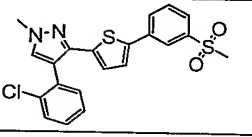
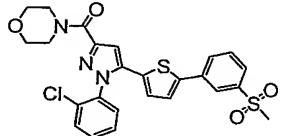
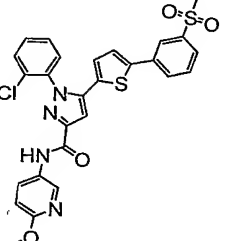
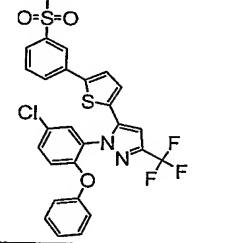
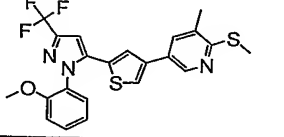
192		(3-{5-[1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid
193		2-(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid
194		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]thiophene-2-carboxylic acid
195		1-(2,5-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
196		1-[(2,4-difluorophenyl)methyl]-5-furan-2-yl-3-(trifluoromethyl)-1H-pyrazole
197		1-[(2,4-difluorophenyl)methyl]-3-furan-2-yl-5-(trifluoromethyl)-1H-pyrazole
198		3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide
199		1-[5-chloro-2-(methoxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
200		5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylthio)pyridine
201		5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylsulfonyl)pyridine

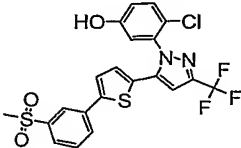
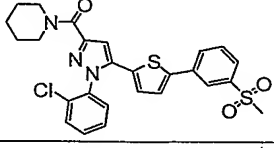
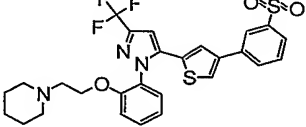
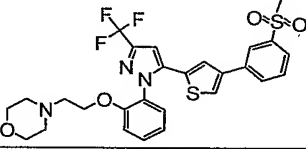
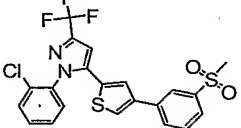
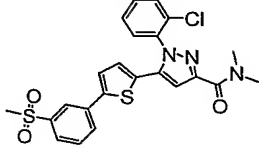
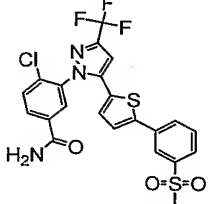
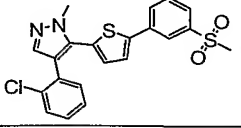
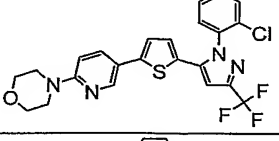
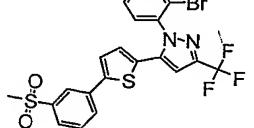
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203		5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-3-methyl-2-(methylthio)pyridine
204		3-methyl-2-(methylsulfonyl)-5-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl}-2-thienyl)pyridine
205		5-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-3-methyl-2-(methylsulfonyl)pyridine
206		1-(2,5-dichlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
207		methyl (3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}phenyl)acetate
208		methyl (3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-5-ethylphenyl)acetate
209		(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}phenyl)acetic acid
210		2-(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}phenyl)-2-methylpropanoic acid

215		1-[2-(methyloxy)phenyl]-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
216		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol
218		2-methyl-4-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}-1,3-thiazole
219		2-methyl-4-{[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]methyl}-1,3-thiazole
221		2-(3-ethyl-5-{5-[1-[2-(methyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}phenyl)-2-methylpropanoic acid
222		5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-nitrophenyl)-3-(trifluoromethyl)-1H-pyrazole
223		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl methylcarbamate
224		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl propylcarbamate
225		methyl 1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylate
226		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylic acid

227		1-[3-(methoxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
228		N-(3-{5-[1-(2-fluorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide
229		2-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenol
230		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl 2,2-dimethylpropanoate
231		3-methyl-5-{5-[1-[2-(methoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-2-(methylsulfonyl)pyridine
232		5-{5-[1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylsulfonyl)pyridine
233		N-{2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}acetamide
234		1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)-5-(1-methylethyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
235		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-2-yl-1H-pyrazole-3-carboxamide
236		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-3-yl-1H-pyrazole-3-carboxamide

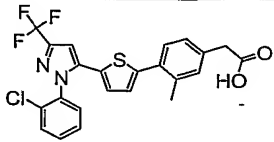
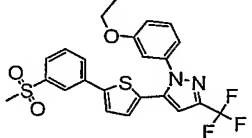
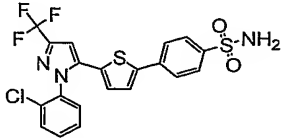
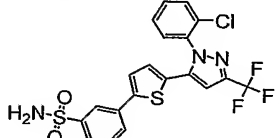
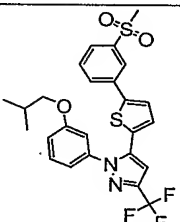
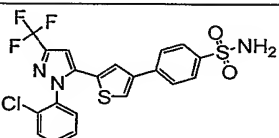
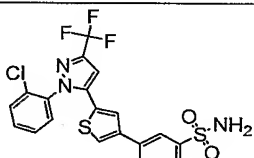
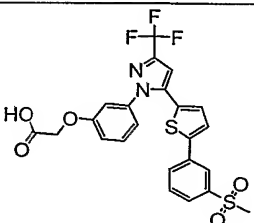
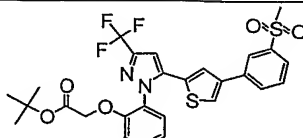
237		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-4-yl-1H-pyrazole-3-carboxamide
238		1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
239		1-(2-chlorophenyl)-N-[3-(methoxy)propyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
240		1-[2-chloro-5-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
241		1-[2-chloro-5-(methoxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
242		1-(5-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
243		5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylthio)pyridine
244		1-(2-chloro-5-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
245		5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(ethylthio)-3-methylpyridine
246		5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methyl-2-(methylsulfonyl)pyridine

247		5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(ethylsulfonyl)-3-methylpyridine
248		1-[3'-(methylsulfonyl)biphenyl-3-yl]-3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole
249		3-chloro-2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]pyridine
251		2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl (1-methylethyl)carbamate
252		4-(2-chlorophenyl)-1-methyl-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
253		4-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)carbonyl]morpholine
254		1-(2-chlorophenyl)-N-[6-(methoxy)pyridin-3-yl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
255		1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
256		3-methyl-5-{5-[1-[2-(methoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}-2-(methylthio)pyridine

257		4-chloro-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol
258		1-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)carbonyl]piperidine
261		1-[2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]piperidine
262		4-[2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]morpholine
263		1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
265		1-(2-chlorophenyl)-N,N-dimethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
266		4-chloro-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzamide
272		4-(2-chlorophenyl)-1-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
273		4-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)morpholine
274		1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole

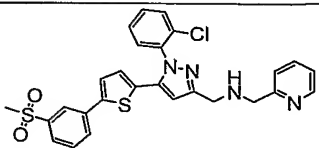
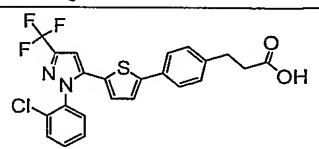
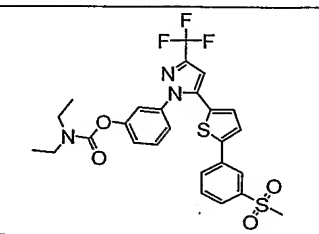
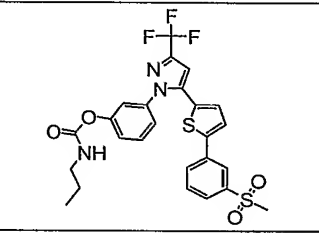
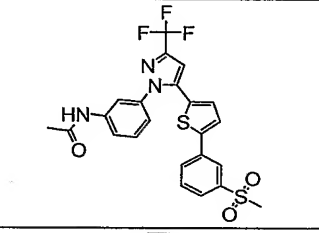
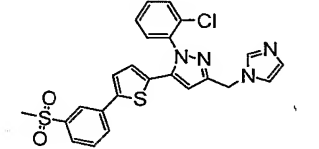
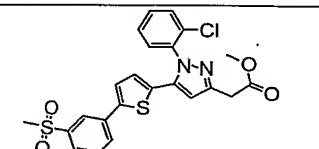
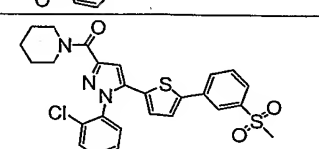
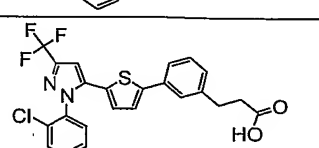
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276		4-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]morpholine
277		1,1-dimethylethyl 4-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine-1-carboxylate
279		(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid
280		(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetic acid
281		2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid
282		1-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-4-methylpiperazine
285		1-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine
286		1-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine
287		1-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine
288		methyl (5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)acetate

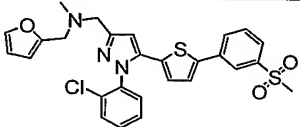
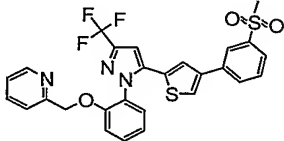
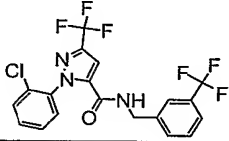
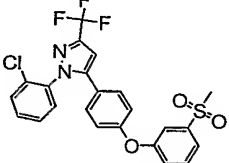
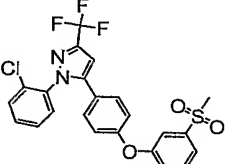
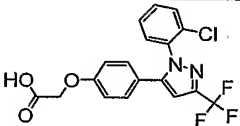
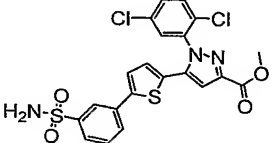
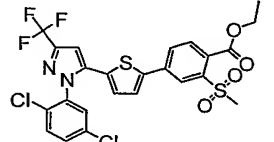
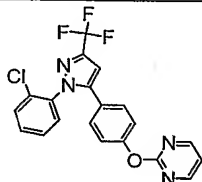
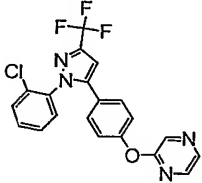
289		methyl (4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methylphenyl)acetate
290		1-{2-[(1-methylethyl)oxy]phenyl}-3-(trifluoromethyl)-1H-pyrazole-5-carboxylic acid
291		1-{2-[(1-methylethyl)oxy]phenyl}-3-(trifluoromethyl)-N-{[3-(trifluoromethyl)phenyl]methyl}-1H-pyrazole-5-carboxamide
292		5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-propylphenyl)-3-(trifluoromethyl)-1H-pyrazole
293		1-[2-(1-methylethyl)phenyl]-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
294		2-[(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)oxy]-2-methylpropanoic acid
295		1-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)cyclobutanecarboxylic acid
296		2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-ethylbutanoic acid
297		2-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)-2-methylpropanoic acid
298		(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenyl)acetic acid
300		methyl (3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenyl)acetate

301		4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-3-methylphenylacetic acid
302		1-[3-(ethyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
303		4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide
304		3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide
305		1-{3-[(2-methylpropyl)oxy]phenyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
306		4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide
307		3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide
308		((3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetic acid
309		1,1-dimethylethyl ((2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetate

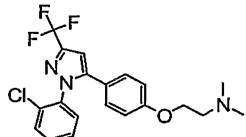
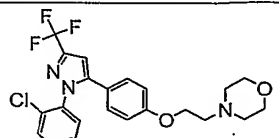
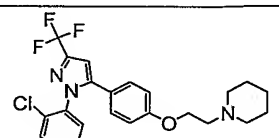
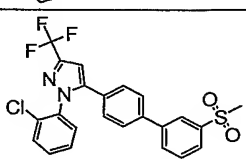
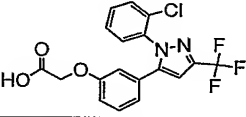
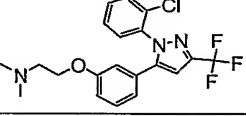
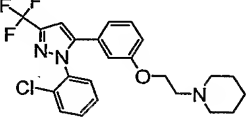
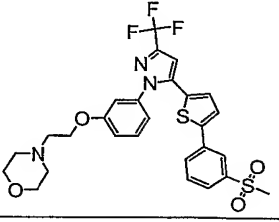
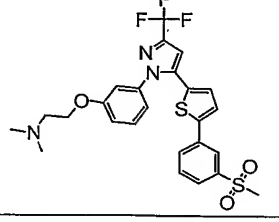
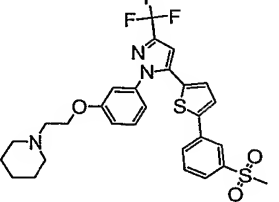
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311		({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetic acid
312		methyl 2-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)-2-methylpropanoate
313		4-(2-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}oxy)ethyl)morpholine
314		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-2-morpholin-4-ylethanamine
315		(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)acetonitrile
316		1,1-dimethylethyl 2-methyl-2-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)propanoate
317		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl dimethylcarbamate
318		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl methylcarbamate

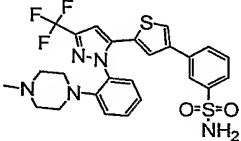
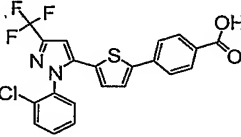
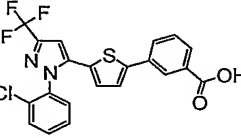
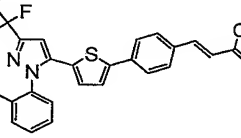
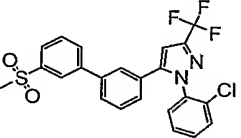
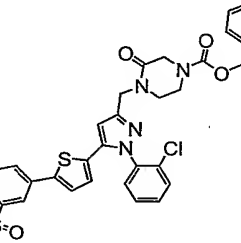
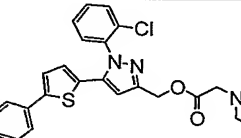
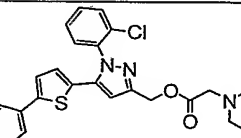
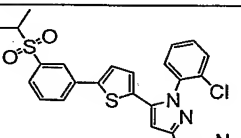
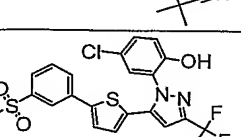
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321		2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethanol
323		1-(2-chlorophenyl)-5-{4-[(phenylmethyl)oxy]phenyl}-3-(trifluoromethyl)-1H-pyrazole
327		4-(2-chlorophenyl)-3-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2,2,2-trifluoroethyl)-1H-pyrazole
328		4-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2,2,2-trifluoroethyl)-1H-pyrazole
329		1-(2-chlorophenyl)-3-(trifluoromethyl)-5-{4-[3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazole
330		1-methyl-4-{2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}piperazine
331		1-{2-[3-(3-chloropropyl)oxy]phenyl}-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
332		3-{5-[1-(2-chloro-5-hydroxyphenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide
333		(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methanol

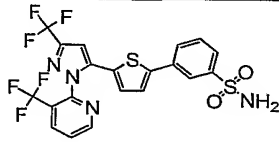
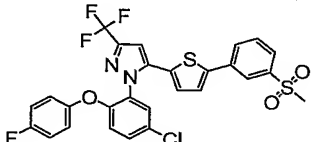
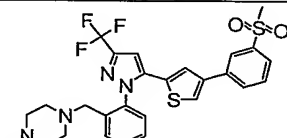
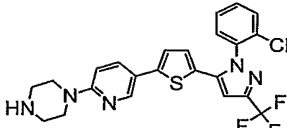
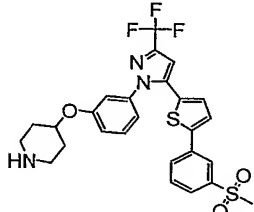
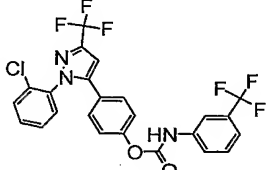
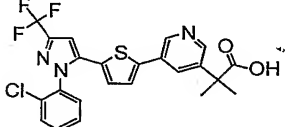
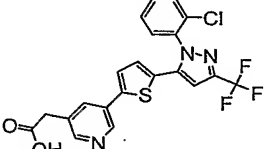
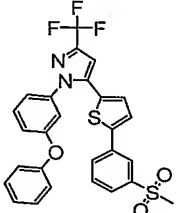
334		1-(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N-(pyridin-2-ylmethyl)methanamine
335		3-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propanoic acid
336		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl diethylcarbamate
337		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl propylcarbamate
338		N-{3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}acetamide
340		1-(2-chlorophenyl)-3-(1H-imidazol-1-ylmethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
341		methyl (1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)acetate
342		1-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)carbonyl]piperidine
343		3-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propanoic acid

344		1-(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N-(furan-2-ylmethyl)-N-methylmethanamine
345		2-[(2-{5-[4-[3-(methylsulfonyl)phenyl]-2-thienyl]-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]pyridine
346		1-(2-chlorophenyl)-3-(trifluoromethyl)-N-{[3-(trifluoromethyl)phenyl]methyl}-1H-pyrazole-5-carboxamide
347		1-(2-chlorophenyl)-5-(4-{[3-(methylsulfonyl)phenyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole
348		1-(2-chlorophenyl)-5-(4-{[3-(methylsulfonyl)phenyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole
350		({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)acetic acid
351		methyl 5-{5-[3-(aminosulfonyl)phenyl]-2-thienyl}-1-(2,5-dichlorophenyl)-1H-pyrazole-3-carboxylate
352		ethyl 4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)benzoate
353		2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)pyrimidine
354		2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)pyrazine

355		1-(2-chlorophenyl)-5-{3-[(phenylmethyl)oxy]phenyl}-3-(trifluoromethyl)-1H-pyrazole
356		methyl ({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)acetate
357		4-[2-({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]morpholine
358		4-[3-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)propyl]morpholine
359		1-methyl-4-[3-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)propyl]piperazine
360		1-methylethyl 5-{5-[3-(aminosulfonyl)phenyl]-2-thienyl}-1-(2,5-dichlorophenyl)-1H-pyrazole-3-carboxylate
361		N,N-dimethyl-2-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetamide
362		4-[(3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)acetyl]morpholine
363		3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]aniline

364		2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)-N,N-dimethylethanamine
365		4-[2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]morpholine
366		1-[2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]piperidine
367		1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazole
368		({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)acetic acid
369		2-({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)-N,N-dimethylethanamine
370		1-[2-({3-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethyl]piperidine
371		4-[2-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]morpholine
372		N,N-dimethyl-2-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethanamine
373		1-[2-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]piperidine

374		3-{5-[1-[2-(4-methylpiperazin-1-yl)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-thienyl}benzenesulfonamide
375		4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid
376		3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid
377		(2E)-3-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)prop-2-enoic acid
378		1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-3-yl]-3-(trifluoromethyl)-1H-pyrazole
379		phenylmethyl 4-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-3-oxopiperazine-1-carboxylate
380		(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl morpholin-4-ylacetate
381		(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl (4-methylpiperazin-1-yl)acetate
382		2-[1-(2-chlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1H-pyrazol-3-yl]-2-methylpropanenitrile
383		4-chloro-2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol

384		3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)benzenesulfonamide
385		1-{5-chloro-2-[(4-fluorophenyl)oxy]phenyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
386		1-methyl-4-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}methyl)piperazine
387		1-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-2-yl)piperazine
388		4-({3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)piperidine
389		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl [3-(trifluoromethyl)phenyl]carbamate
390		2-(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)-2-methylpropanoic acid
391		(5-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}pyridin-3-yl)acetic acid
394		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(phenyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole

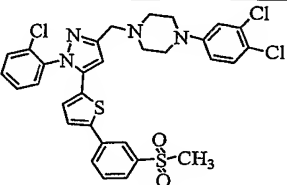
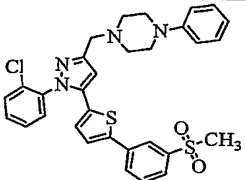
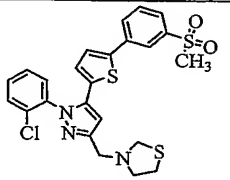
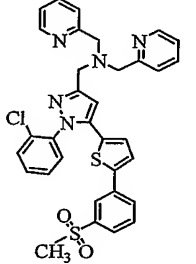
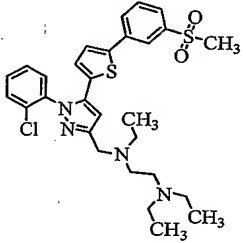
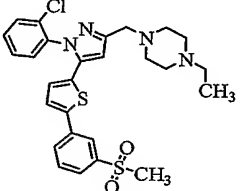
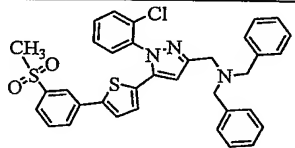
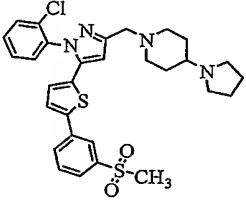
395		1-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole
396		4'-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}biphenyl-3-sulfonamide
397		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[(5-(trifluoromethyl)furan-2-yl)methyl]oxy)methyl]-1H-pyrazole
398		2-({[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]oxy}methyl)pyridine
399		1-(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N-methyl-N-(2-thienylmethyl)methanamine
400		3-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl](furan-2-ylmethyl)amino]propanenitrile
401		1-({5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl)sulfonyl}-4-methylpiperazine
402		1-({5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl)sulfonyl)piperidine
403		4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)benzoic acid
404		3-(5-{3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]-2-thienyl)benzenesulfonamide

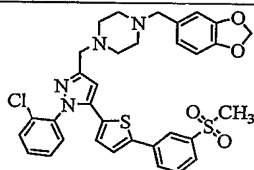
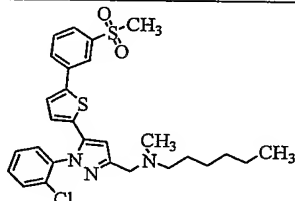
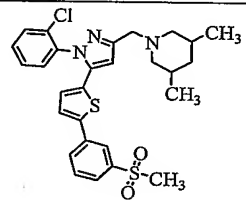
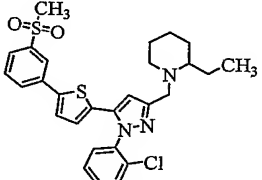
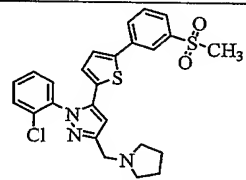
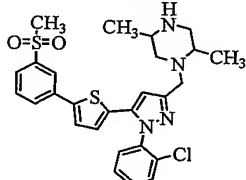
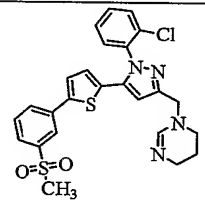
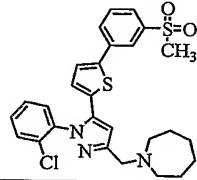
405		N-[(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)sulfonyl]acetamide
406		1-(2,5-dichlorophenyl)-5-(5-{3-[(1,1-dimethylethyl)sulfonyl]phenyl}-2-thienyl)-3-(trifluoromethyl)-1H-pyrazole
407		1-(2,5-dichlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-3-(trifluoromethyl)-1H-pyrazole
408		3-(trifluoromethyl)-1-[3'-(trifluoromethyl)biphenyl-4-yl]-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole
409		3-(trifluoromethyl)-1-[3'-(trifluoromethoxy)biphenyl-4-yl]-5-[2-(trifluoromethyl)phenyl]-1H-pyrazole
410		5-[3-(methylsulfonyl)phenyl]-2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}-1,3-thiazole
411		3-(2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}-1,3-thiazol-5-yl)benzenesulfonamide
412		2-(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)-N-ethylacetamide
413		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-2,2,2-trifluoro-N-(furan-2-ylmethyl)ethanamine
414		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-N-(furan-2-ylmethyl)propan-2-amine
415		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-N-(furan-2-ylmethyl)cyclopropanamine

416		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-N-(furan-2-ylmethyl)-2-methylpropan-2-amine
417		N-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)methyl]-N-(furan-2-ylmethyl)cyclohexanamine
418		2-(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
419		1-(2,5-dichlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
420		1-(2,5-dichlorophenyl)-5-{5-[3-(propylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
421		[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]methanol
423		5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]thiophene-2-sulfonic acid
424		methyl 1-[(1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)carbonyl]piperidine-4-carboxylate
425		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-piperidin-1-yl-1H-pyrazole-3-carboxamide
426		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(3,5-dimethylisoxazol-4-yl)methyl]-N-methylmethanamine
427		2-[5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl]-3-(trifluoromethyl)pyridine

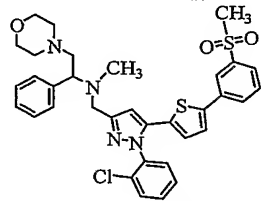
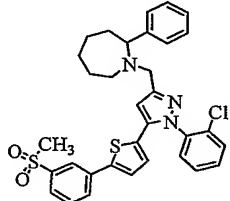
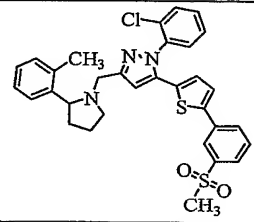
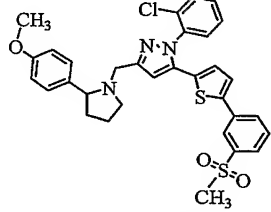
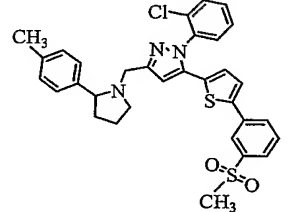
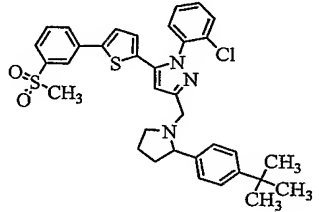
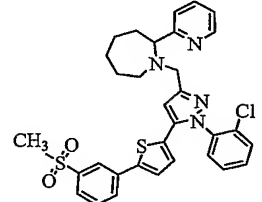
428		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(phenylmethyl)methanamine
429		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(phenylmethyl)piperidine
430		ethyl 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine-2-carboxylate
431		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(phenylmethyl)piperazine
432		ethyl N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(phenylmethyl)glycinate
433		4-[(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazin-1-yl)acetyl]morpholine
434		2-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}decahydroisoquinoline
435		2-[3,4-bis(methoxy)phenyl]-N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methylethanamine

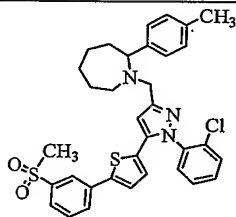
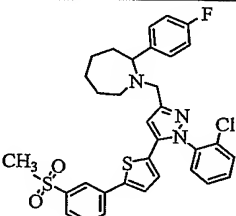
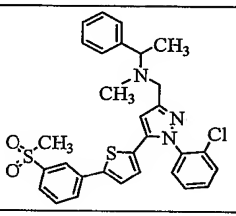
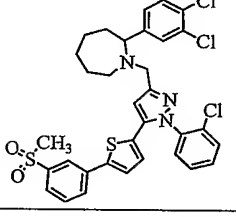
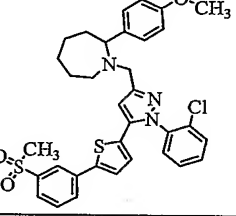
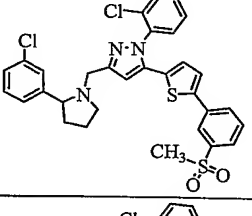
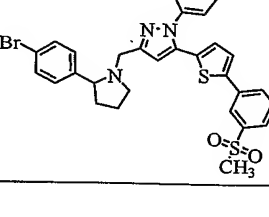
436		ethyl 1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine-4-carboxylate
437		ethyl 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazine-1-carboxylate
438		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-propylpropan-1-amine
439		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-3-methylpiperidine
440		4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2,6-dimethylmorpholine
441		1,1-dimethylethyl 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperazine-1-carboxylate
442		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(2-oxo-2-pyrrolidin-1-ylethyl)piperazine
443		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-(methyloxy)-N-[2-(methyloxy)ethyl]ethanamine

444		1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(3,4-dichlorophenyl)piperazine
445		1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-phenylpiperazine
446		3-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-1,3-thiazolidine
447		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-bis(pyridin-2-ylmethyl)methanamine
448		N-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N,N,N'-triethylethane-1,2-diamine
449		1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-ethylpiperazine
450		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-bis(phenylmethyl)methanamine
451		1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-pyrrolidin-1-ylpiperidine

452		1-(1,3-benzodioxol-5-ylmethyl)-4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]piperazine
453		N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methylhexan-1-amine
454		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-3,5-dimethylpiperidine
455		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-ethylpiperidine
456		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylmethyl)-1H-pyrazole
457		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2,5-dimethylpiperazine
458		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-1,4,5,6-tetrahydropyrimidine
459		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]azepane

460		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-4-[5-(trifluoromethyl)pyridin-2-yl]piperazine
461		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-4-[3-(trifluoromethyl)phenyl]piperazine
462		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-cyclohexylcyclohexanamine
463		methyl 1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-L-prolinate
464		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-1,4-diazepane
465		1-(2-chlorophenyl)-3-({2-[4-(ethyloxy)phenyl]pyrrolidin-1-yl}methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
466		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(4-fluorophenyl)methyl]-N-methylmethanamine

467		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-N-methyl-2-morpholin-4-yl-1-phenylethanamine
468		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-2-phenylazepane
469		1-(2-chlorophenyl)-3-([2-(2-methylphenyl)pyrrolidin-1-yl]methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
470		1-(2-chlorophenyl)-3-([2-[4-(methoxy)phenyl]pyrrolidin-1-yl]methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
471		1-(2-chlorophenyl)-3-([2-(4-methylphenyl)pyrrolidin-1-yl]methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
472		1-(2-chlorophenyl)-3-([2-[4-(1,1-dimethylethyl)phenyl]pyrrolidin-1-yl]methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
473		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-2-pyridin-2-ylazepane

474		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-(4-methylphenyl)azepane
475		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-(4-fluorophenyl)azepane
476		N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methyl-1-phenylethanamine
477		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-(3,4-dichlorophenyl)azepane
478		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-2-[4-(methyloxy)phenyl]azepane
479		1-(2-chlorophenyl)-3-[[2-(3-chlorophenyl)pyrrolidin-1-yl]methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
480		3-[[2-(4-bromophenyl)pyrrolidin-1-yl]methyl]-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole

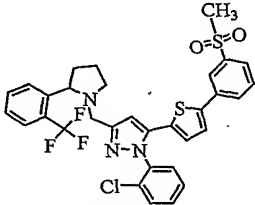
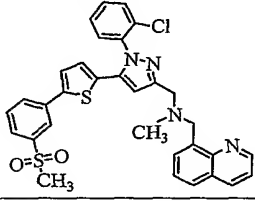
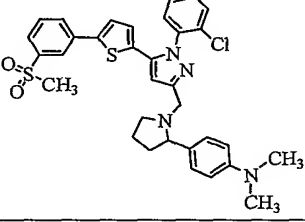
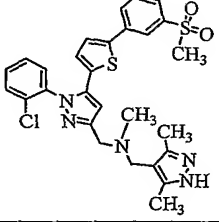
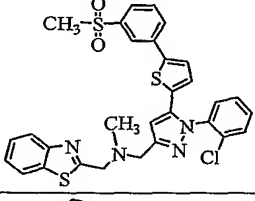
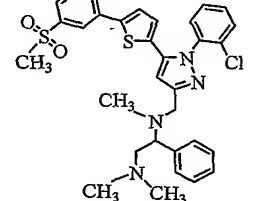
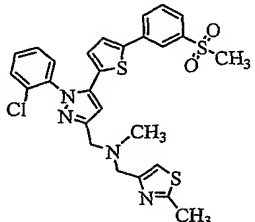
481		1-(2-chlorophenyl)-3-({2-[3-(methyloxy)phenyl]pyrrolidin-1-yl}methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
482		1-(2-chlorophenyl)-3-({2-[2-(methyloxy)phenyl]pyrrolidin-1-yl}methyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
483		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-[3-(methyloxy)phenyl]azepane
484		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-(2-thienyl)azepane
485		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(pyridin-4-ylmethyl)ethanamine
486		N-(3-cyclopropyl-1H-pyrazol-5-yl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
487		N-(3-acetylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
488		N-[4-(methyloxy)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
489		N-(5-methylpyridin-2-yl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
490		N-[3-(ethyloxy)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide

491		N-(4-ethylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
492		N-[3-(methyloxy)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
493		N-(5-mercapto-1,3,4-thiadiazol-2-yl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
494		N-ethyl-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-N-phenylthiophene-2-sulfonamide
495		N-[4-(1-methylpropyl)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
496		N-ethyl-N-(3-methylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
497		N-(4-methylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
498		N-(3,4-dimethylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
499		N-(3-ethylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
500		N-[4-(1-methylethyl)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
501		N-(3-methylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-N-propylthiophene-2-sulfonamide
502		N-(4-chlorophenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
503		N-[4-(methylthio)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide

504		5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-N-(2,4,6-trimethylphenyl)thiophene-2-sulfonamide
505		N-[4-(1,1-dimethylethyl)phenyl]-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
506		N-(3,5-dimethylphenyl)-5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]thiophene-2-sulfonamide
507		5-[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-N-(4-propylphenyl)thiophene-2-sulfonamide
508		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-methylpiperazine
544		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(3-thienylmethyl)methanamine
545		4-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)amino)pyrimidine-2(1H)-thione
546		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(3-methylisoxazol-5-yl)methyl]methanamine
547		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(pyridin-4-ylmethyl)methanamine
548		N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl]-N-methyl-1-(2-thienyl)ethanamine

549		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}piperidin-3-yl)methanol
550		4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}-3-[4-(trifluoromethyl)phenyl]thiomorpholine
551		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}-2-(3-methylphenyl)azepane
552		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-dimethylmethanamine
553		1-(1,1-dimethylethyl) 3-methyl 4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}piperazine-1,3-dicarboxylate
554		2-(4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}piperazin-1-yl)-N,N-diethylethanamine
555		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}methyl}-4-(3-phenylpropyl)piperazine
556		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(4-ethylphenyl)methyl]-N-methylmethanamine

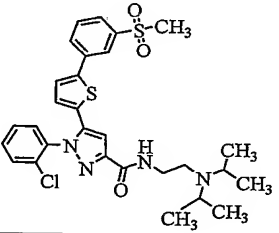
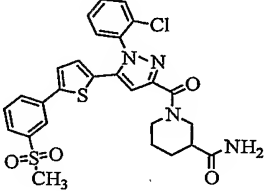
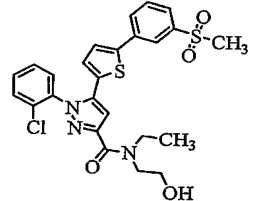
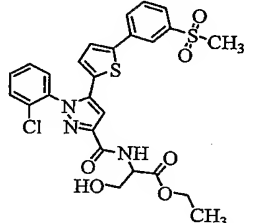
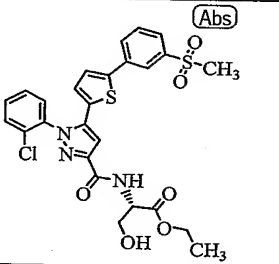
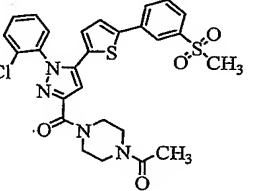
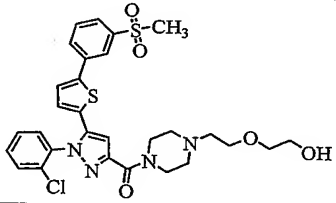
557		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(4-methyl-1H-imidazol-2-yl)methyl]methanamine
558		[{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}(methyl)amino]acetonitrile
559		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine
560		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-methyl-N-(phenylmethyl)propan-2-amine
561		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-(1H-imidazol-2-ylmethyl)-N-methylmethanamine
562		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(5-methyl-1H-pyrazol-3-yl)methyl]methanamine
563		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(4-methylphenyl)methyl]methanamine
564		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2-(2-methylphenyl)azepane

565		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-({2-[2-(trifluoromethyl)phenyl]pyrrolidin-1-yl}methyl)-1H-pyrazole
566		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(quinolin-8-ylmethyl)methanamine
567		4-(1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}pyrrolidin-2-yl)-N,N-dimethylaniline
568		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-[(3,5-dimethyl-1H-pyrazol-4-yl)methyl]-N-methylmethanamine
569		1-(1,3-benzothiazol-2-yl)-N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-N-methylmethanamine
570		N-1-~{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-N-1~,N-2~,N-2~-trimethyl-1-phenylethane-1,2-diamine
571		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]-N-methyl-N-[(2-methyl-1,3-thiazol-4-yl)methyl]methanamine

572		1-(1-benzothien-2-yl)-N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-N-methylmethanamine
573		2-(1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}pyrrolidin-2-yl)-1H-indole
574		3-{[2-(2-bromophenyl)pyrrolidin-1-yl]methyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
575		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]-N-methyl-N-(quinolin-5-ylmethyl)methanamine
576		N-butyl-N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}butan-1-amine
577		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-4-phenylpiperidine-4-carbonitrile
578		2-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-6,7-bis(methoxy)-1,2,3,4-tetrahydroisoquinoline
579		4-(4-chlorophenyl)-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]methyl}-1,2,3,6-tetrahydropyridine

580		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-[(5-phenylisoxazol-3-yl)methyl]methanamine
581		4-bromo-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidine
582		methyl N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methylglycinate
583		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}piperidin-3-ol
584		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methyl-2-phenylpropan-2-amine
585		4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-3-(4-fluorophenyl)thiomorpholine
586		1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
587		1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

588		1-(2-chlorophenyl)-N-[3-(dimethylamino)propyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
589		methyl N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-N-methylglycinate
590		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-morpholin-4-ylethyl)-1H-pyrazole-3-carboxamide
591		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-N,N-dimethylpiperidin-4-amine
592		1-(1-(2-chlorophenyl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazole-3-carbonyl)piperidine-4-carboxylic acid
594		4-[(1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperidin-3-yl)carbonyl]morpholine
595		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(4-pyrrolidin-1-ylbutyl)-1H-pyrazole-3-carboxamide
596		1-(2-chlorophenyl)-N-[(2S)-2-hydroxypropyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
597		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[[[(2S)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl]-1H-pyrazole

598		N-{2-[bis(1-methylethyl)amino]ethyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
599		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperidine-3-carboxamide
600		1-(2-chlorophenyl)-N-ethyl-N-(2-hydroxyethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
601		ethyl N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]serinate
602		ethyl N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-L-serinate
603		1-acetyl-4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperazine
604		2-[[2-(4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]carbonyl]piperazin-1-yl)ethyl]oxy]ethanol

605		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-morpholin-4-yl-1-phenylethyl)-1H-pyrazole-3-carboxamide
606		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[1-(2-methyl-1,3-thiazol-4-yl)ethyl]-1H-pyrazole-3-carboxamide
607		1-(2-chlorophenyl)-N-(4-methylpyrimidin-2-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
608		ethyl N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-beta-alaninate
609		1-(2-chlorophenyl)-N-(1,3-dioxolan-2-ylmethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
610		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(3-thienylmethyl)-1H-pyrazole-3-carboxamide
611		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[2-(5-methyl-4H-1,2,4-triazol-3-yl)ethyl]-1H-pyrazole-3-carboxamide

612		1-(2-chlorophenyl)-N-[2-(3,5-dimethyl-1H-pyrazol-4-yl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
613		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-1H-pyrazol-3-yl-1H-pyrazole-3-carboxamide
614		1-(2-chlorophenyl)-N-[(3,5-dimethyl-1H-pyrazol-4-yl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
615		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(2,4-difluorophenyl)piperazine
616		1-(2-chlorophenyl)-N-{2-(dimethylamino)-2-[4-(methyloxy)phenyl]ethyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
617		ethyl N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-N-(furan-2-ylmethyl)-beta-alaninate
618		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(4-nitrophenyl)piperazine

619		4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-2,6-dimethylmorpholine
620		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperidin-3-ol
621		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-oxotetrahydro-3-thienyl)-1H-pyrazole-3-carboxamide
622		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(3-morpholin-4-ylpropyl)-1H-pyrazole-3-carboxamide
623		1-(2-chlorophenyl)-N-(2-cyanoethyl)-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
624		1-(2-chlorophenyl)-N-[2-(4-fluorophenyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
625		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-piperidin-1-ylethyl)-1H-pyrazole-3-carboxamide

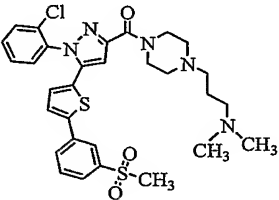
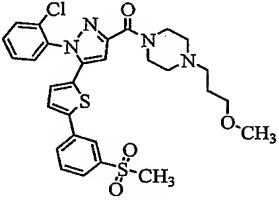
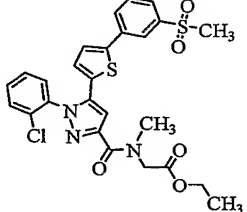
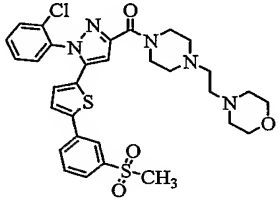
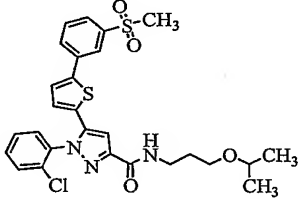
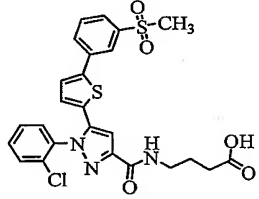
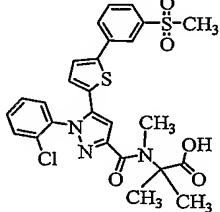
626		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(pyridin-4-ylmethyl)-1H-pyrazole-3-carboxamide
627		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4-(6-methylpyridin-2-yl)piperazine
628		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-pyridin-2-ylethyl)-1H-pyrazole-3-carboxamide
629		3-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4,4-dimethyl-1,3-oxazolidine
630		3-({1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl)amino)-2-methylpropanoic acid
631		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4-methyl-1,4-diazepane
632		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}piperidin-4-ol

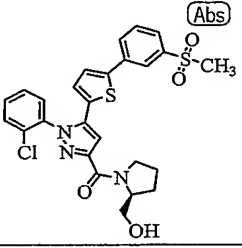
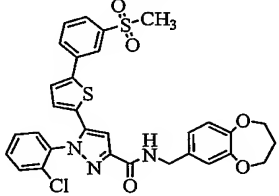
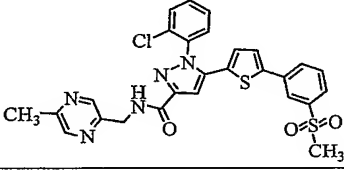
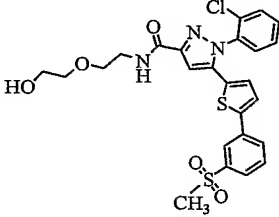
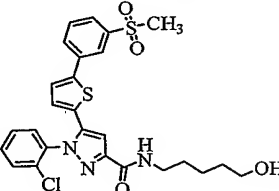
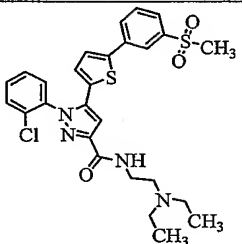
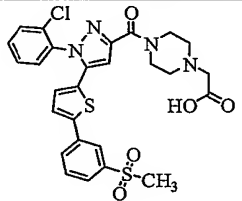
633		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}piperidine-2-carboxylic acid
634		1-(2-chlorophenyl)-N-[2-(1H-imidazol-4-yl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
635		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4-(2-pyridin-2-ylethyl)piperazine
636		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(pyridin-3-ylmethyl)-1H-pyrazole-3-carboxamide
637		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4-ethylpiperazine
638		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-1,4-diazepane
639		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-4-pyrrolidin-1-ylpiperidine
640		2-(4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl}carbonyl}-1,4-diazepan-1-yl)pyridine-3-carbonitrile

641		2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)pyridine-3-carbonitrile
642		2-[(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)methyl]-4,6-bis(methoxy)pyrimidine
643		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-[5-(2-thienyl)-1H-pyrazol-3-yl]piperidine
644		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(phenylmethyl)piperazine
645		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-pyrrolidin-1-ylethyl)-1H-pyrazole-3-carboxamide
646		1-(2-chlorophenyl)-N-{[4-(methoxy)phenyl]methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
647		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-{[3-(trifluoromethyl)phenyl]methyl}-1H-pyrazole-3-carboxamide

648		1-(2-chlorophenyl)-N-[2-(1-methylpyrrolidin-2-yl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
649		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[2-(2-thienyl)ethyl]-1H-pyrazole-3-carboxamide
650		1-(2-chlorophenyl)-N-[3-(2-methylpiperidin-1-yl)propyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
651		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-{[4-(trifluoromethyl)phenyl]methyl}-1H-pyrazole-3-carboxamide
652		N-{[3,4-bis(methyloxy)phenyl]methyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
653		1-(2-chlorophenyl)-N-{[2-(methyloxy)phenyl]methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
654		1-(2-chlorophenyl)-N-{[3-(methyloxy)phenyl]methyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

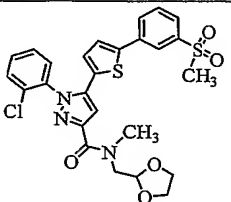
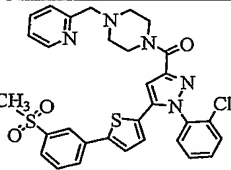
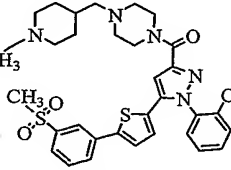
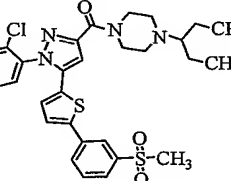
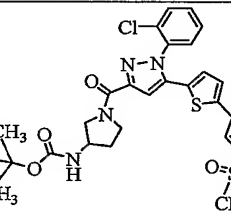
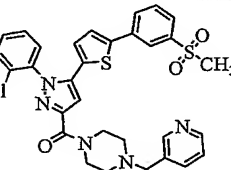
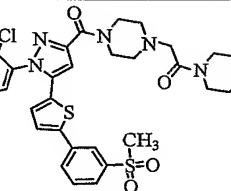
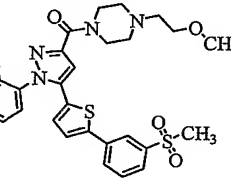
655		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(pyridin-2-ylmethyl)-1H-pyrazole-3-carboxamide
656		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-pyridin-2-ylethyl)-1H-pyrazole-3-carboxamide
657		1-(2-chlorophenyl)-N-{2-[2-(methoxy)phenyl]ethyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
658		1-(2-chlorophenyl)-N-(furan-2-ylmethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
659		1-(2-chlorophenyl)-N-[3-(dimethylamino)-2,2-dimethylpropyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
660		ethyl 1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]carbonyl]piperidine-2-carboxylate
661		1-(2-chlorophenyl)-N-[3-(dimethylamino)propyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
662		8-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]carbonyl]-1,4-dioxo-8-azaspiro[4.5]decane

663		3-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)-N,N-dimethylpropan-1-amine
664		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-[3-(methyloxy)propyl]piperazine
665		ethyl N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-N-methylglycinate
666		4-[2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)ethyl]morpholine
667		1-(2-chlorophenyl)-N-{3-[(1-methylethyl)oxy]propyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
668		4-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}amino)butanoic acid
669		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-N,2-dimethylalanine

670		[(2S)-1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]pyrrolidin-2-yl]methanol
671		1-(2-chlorophenyl)-N-(3,4-dihydro-2H-1,5-benzodioxepin-7-ylmethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
672		1-(2-chlorophenyl)-N-[(5-methylpyrazin-2-yl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
673		1-(2-chlorophenyl)-N-{2-[(2-hydroxyethyl)oxy]ethyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
674		1-(2-chlorophenyl)-N-(5-hydroxypentyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
675		1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
676		(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)acetic acid

677		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}-4-(pyridin-4-ylmethyl)piperazine
678		1-(3-chlorophenyl)-4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}piperazine
679		1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
680		1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(phenylmethyl)-1H-pyrazole-3-carboxamide
681		1-[(4-chlorophenyl)methyl]-4-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}piperazine
682		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}-4-(3-phenylpropyl)piperazine
683		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}-4-(1-methylpiperidin-4-yl)piperazine
684		1-{{1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}}-1H-pyrazol-3-yl]carbonyl}-4-(tetrahydrofuran-2-ylmethyl)piperazine

685		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(3-methylphenyl)piperazine
686		2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)benzonitrile
687		1-(2-chlorophenyl)-N-(2-hydroxyethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
688		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(2-fluorophenyl)piperazine
689		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-[3-(methoxy)phenyl]piperazine
690		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(2-piperidin-1-ylethyl)piperazine
691		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-[(1-methylpiperidin-3-yl)methyl]piperazine
692		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-pyridin-4-ylpiperazine

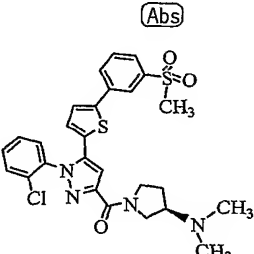
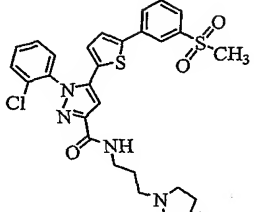
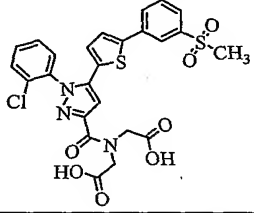
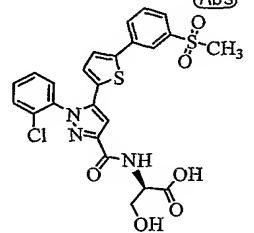
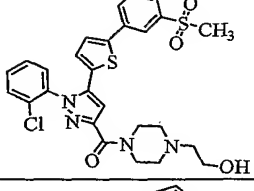
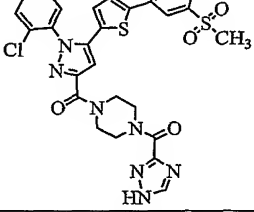
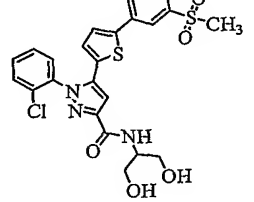
693		1-(2-chlorophenyl)-N-(1,3-dioxolan-2-ylmethyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
694		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(pyridin-2-ylmethyl)piperazine
695		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-[(1-methylpiperidin-4-yl)methyl]piperazine
696		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(1-ethylpropyl)piperazine
697		1,1-dimethylethyl (1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]pyrrolidin-3-yl)carbamate
698		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(pyridin-3-ylmethyl)piperazine
699		4-[(4-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-3-yl]carbonyl]piperazin-1-yl)acetyl]morpholine
700		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-[2-(methoxy)ethyl]piperazine

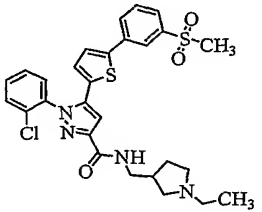
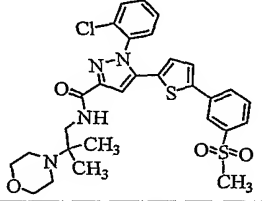
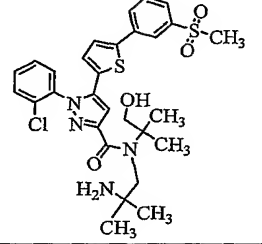
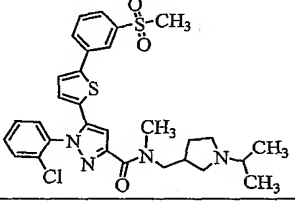
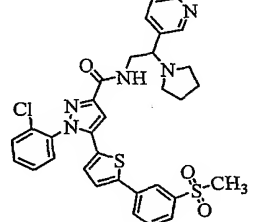
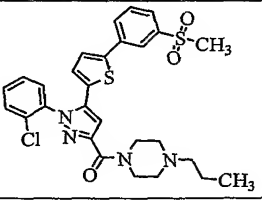
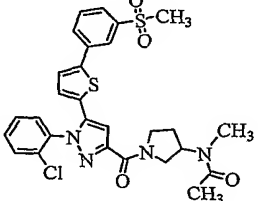
701		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-4-yl-1H-pyrazole-3-carboxamide
702		4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}carbonylpiperazin-2-one
703		1-(2-chlorophenyl)-N-(5-methyl-1,3,4-oxadiazol-2-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
704		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}carbonylpiperidine-3-carboxylic acid
705		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}carbonylazetidine-3-carboxylic acid
706		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(pyridin-4-ylmethyl)-1H-pyrazole-3-carboxamide
707		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[(1,3,5-trimethyl-1H-pyrazol-4-yl)methyl]-1H-pyrazole-3-carboxamide
708		1-(2-chlorophenyl)-N-(1-methyl-1H-pyrazol-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

709		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-pyridin-2-yl-1H-pyrazole-3-carboxamide
710		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-cyclopentylpiperazine
711		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-[4-(methyloxy)butyl]piperazine
712		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-hexylpiperazine
713		N-[2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)ethyl]-N-prop-2-en-1-ylprop-2-en-1-amine
714		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(1-methylpropyl)piperazine
715		1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-4-(2-pyrrolidin-1-ylethyl)piperazine
716		1-(2-chlorophenyl)-N-methyl-N-(1-methylpiperidin-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

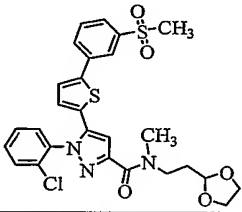
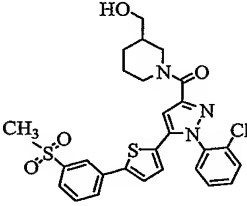
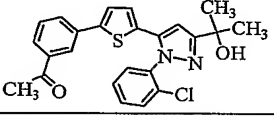
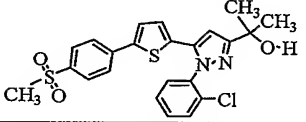
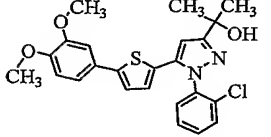
717		N-[2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)ethyl]-N-propylpropan-1-amine
718		1-(2-chlorophenyl)-N-[(2,2-dimethyl-1,3-dioxolan-4-yl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
719		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(1-methylethyl)piperazine
720		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-pentylpiperazine
721		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-heptylpiperazine
722		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(1-methylbutyl)piperazine
723		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(1,3-dioxolan-2-ylmethyl)piperazine
724		N-(2-amino-2-oxoethyl)-1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

725		(2R,6S)-4-(1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperidin-4-yl)-2,6-dimethylmorpholine
726		4-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)-1,2-dimethylpiperazine
727		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N,N-bis(pyridin-2-ylmethyl)-1H-pyrazole-3-carboxamide
728		ethyl 1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]piperidine-4-carboxylate
729		ethyl 4-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)amino)piperidine-1-carboxylate
730		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)-4-cycloheptylpiperazine
731		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl)-4-prop-2-en-1-ylpiperazine

732		(3R)-1-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-N,N-dimethylpyrrolidin-3-amine
733		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(3-pyrrolidin-1-ylpropyl)-1H-pyrazole-3-carboxamide
734		2,2'-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}imino)diacetic acid
735		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-D-serine
736		2-(4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperazin-1-yl)ethanol
737		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-(1H-1,2,4-triazol-3-yl)piperazine
738		1-(2-chlorophenyl)-N-[2-hydroxy-1-(hydroxymethyl)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

739		1-(2-chlorophenyl)-N-[(1-ethylpyrrolidin-3-yl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
740		1-(2-chlorophenyl)-N-(2-methyl-2-morpholin-4-ylpropyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
741		N-(2-amino-2-methylpropyl)-1-(2-chlorophenyl)-N-(2-hydroxy-1,1-dimethylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
742		1-(2-chlorophenyl)-N-methyl-N-[[1-(1-methylethyl)pyrrolidin-3-yl]methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
743		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-pyridin-3-yl-2-pyrrolidin-1-ylethyl)-1H-pyrazole-3-carboxamide
744		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-propylpiperazine
745		N-(1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}pyrrolidin-3-yl)-N-methylacetamide

746		1-(2-chlorophenyl)-N-(3-hydroxypropyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
747		1-(2-chlorophenyl)-N-(2-hydroxyethyl)-N-[2-(methoxy)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
748		(3R)-1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}pyrrolidin-3-ol
749		1-{{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-N,N-diethylpyrrolidin-3-amine
750		2-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}amino)ethyl imidothiocarbamate
751		1-(2-chlorophenyl)-N-[4-(diethylamino)-1-methylbutyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
752		N-{{[4-(aminosulfonyl)phenyl]methyl}-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

753		1-(2-chlorophenyl)-N-[2-(1,3-dioxolan-2-yl)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
754		(1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}piperidin-3-yl)methanol
755		1-(3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)ethanone
804		2-[1-(2-chlorophenyl)-5-{5-[4-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
805		2-[5-{5-[3,4-bis(methoxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol

806		2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(1-methylethyl)benzamide
807		2-[1-(2-chlorophenyl)-5-{5-[2-(methylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
808		2-{1-(2-chlorophenyl)-5-[5-(2-fluorobiphenyl-4-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
809		2-{1-(2-chlorophenyl)-5-[5-(3-fluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
810		N-(3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetamide
811		2-[1-(2-chlorophenyl)-5-(5-{4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
812		2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-3-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
813		2-{1-(2-chlorophenyl)-5-[5-(4-chlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
814		2-[1-(2-chlorophenyl)-5-{5-[5-fluoro-2-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
815		2-[1-(2-chlorophenyl)-5-{5-[4-(ethyloxy)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

816		2-{1-(2-chlorophenyl)-5-[5-(2,3-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
817		2-[1-(2-chlorophenyl)-5-(5-pyrimidin-5-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
818		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid
819		N-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide
820		2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-fluorophenol
821		2-[1-(2-chlorophenyl)-5-(5-{4-fluoro-2-[(phenylmethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
822		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-fluorobenzoic acid
823		2-{1-(2-chlorophenyl)-5-[5-(1-methyl-1H-indol-5-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
824		2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]-5-(trifluoromethyl)phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
825		2-chloro-5-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide

826		2-{5-[5-(2-chloro-6-fluorophenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
827		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N,N-dimethylbenzenesulfonamide
828		2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-methylbenzamide
829		2-[1-(2-chlorophenyl)-5-(5-{2-methyl-4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
830		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(furan-2-ylmethyl)benzamide
831		methyl 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoate
832		2-[5-{5-[3-chloro-4-(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
833		2-[5-(5-{3-chloro-4-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
834		2-[1-(2-chlorophenyl)-5-{5-[4-(1,3-thiazolidin-3-ylcarbonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
835		2-chloro-4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-cyclopropylbenzamide

836		2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-4-fluorophenol
837		N-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide
838		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-fluorobenzoic acid
839		2-[1-(2-chlorophenyl)-5-{5-[4-(methylthio)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
840		2-[1-(2-chlorophenyl)-5-{5-[2-methyl-5-(methoxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
841		2-[1-(2-chlorophenyl)-5-{5-[2-(methoxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
842		2-[1-(2-chlorophenyl)-5-{5-[6-(methoxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
843		2-[1-(2-chlorophenyl)-5-{5-[4-(methoxy)-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
844		2-[1-(2-chlorophenyl)-5-(5-pyridin-3-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
845		2-{1-(2-chlorophenyl)-5-[5-(1H-indol-6-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol

846		2-[1-(2-chlorophenyl)-5-{5-[(1E)-3,3-dimethylbut-1-en-1-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
847		1,1-dimethylethyl 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-1H-pyrrole-1-carboxylate
848		2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]pyridin-3-yl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
849		2-[1-(2-chlorophenyl)-5-{5-[2-(cyclopentyloxy)pyridin-3-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
850		ethyl 4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoate
851		2-{1-(2-chlorophenyl)-5-[5-(5-methylfuran-2-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
852		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide
853		methyl N-[(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)carbonyl]glycinate
854		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzamide
855		2-[1-(2-chlorophenyl)-5-{5-[3-(thiomorpholin-4-ylcarbonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

856		2-{5-[5-(1,3-benzodioxol-5-yl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
857		2-[1-(2-chlorophenyl)-5-{5-[2-methyl-5-(morpholin-4-ylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
858		2-[5-{5-[2,4-bis(trifluoromethyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
859		2-[5-{5-[2,3-bis(methoxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
860		2-[1-(2-chlorophenyl)-5-{5-[3,5-difluoro-2-(methoxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
861		2-[1-(2-chlorophenyl)-5-{5-[2-(phenyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
862		2-[1-(2-chlorophenyl)-5-{5-[3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
863		2-{1-(2-chlorophenyl)-5-[5-(3,5-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
864		2-{1-(2-chlorophenyl)-5-[5-(2,4,5-trimethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
865		2-[1-(2-chlorophenyl)-5-(5-naphthalen-2-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
866		2-[1-(2-chlorophenyl)-5-(5-{2-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol

867		2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-5-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
868		2-{1-(2-chlorophenyl)-5-[5-(1-phenylethenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
869		2-[1-(2-chlorophenyl)-5-{5-[(1E)-prop-1-en-1-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
870		2-{1-(2-chlorophenyl)-5-[5-(5-fluoro-2-methylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
871		2-[1-(2-chlorophenyl)-5-{5-[2-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
872		2-[1-(2-chlorophenyl)-5-(5-{5-methyl-2-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
873		2-[5-(2,2'-bithien-5-yl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
874		2-[5-(5-biphenyl-3-yl-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
875		2-[1-(2-chlorophenyl)-5-{5-[5-methyl-2-(propyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
876		2-{1-(2-chlorophenyl)-5-[5-(4-propylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol

877		2-[1-(2-chlorophenyl)-5-(5-{4-((trifluoromethyl)oxy)phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
878		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(2-methylpropyl)benzamide
879		2-[1-(2-chlorophenyl)-5-{5-[3-(ethyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
880		2-{1-(2-chlorophenyl)-5-[5-(4-ethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
881		2-{1-(2-chlorophenyl)-5-[5-(3,4-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
882		2-[1-(2-chlorophenyl)-5-{5-[6-(methyloxy)naphthalen-2-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
883		2-{1-(2-chlorophenyl)-5-[5-(2-ethylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
884		2-[1-(2-chlorophenyl)-5-{5-[4-(dimethylamino)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
885		2-{1-(2-chlorophenyl)-5-[5-(2,4,5-trifluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
886		2-[1-(2-chlorophenyl)-5-{5-[2-fluoro-5-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

887		2-[1-(2-chlorophenyl)-5-[5-(2,3,4-trifluorophenyl)-2-thienyl]-1H-pyrazol-3-yl]propan-2-ol
888		N-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetamide
889		2-[1-(2-chlorophenyl)-5-{5-[3-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
890		2-[5-{5-[5-chloro-2-(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
891		2-[1-(2-chlorophenyl)-5-{5-[2,3,4-tris(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
892		2-[1-(2-chlorophenyl)-5-{5-[2-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
893		2-[1-(2-chlorophenyl)-5-[5-(1H-indol-5-yl)-2-thienyl]-1H-pyrazol-3-yl]propan-2-ol
894		2-[1-(2-chlorophenyl)-5-{5-[6-(ethyloxy)naphthalen-2-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
895		2-[1-(2-chlorophenyl)-5-{5-[4-(hydroxymethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
896		2-[1-(2-chlorophenyl)-5-[5-(2,3-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl]propan-2-ol

897		2-{1-(2-chlorophenyl)-5-[5-(2,4-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
898		2-{5-[5-(2-chloro-6-fluoro-3-methylphenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
899		2-[1-(2-chlorophenyl)-5-{5-[4-(methylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
900		2-[1-(2-chlorophenyl)-5-{5-[4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
901		2-{5-[5-(6-chloro-2-fluoro-3-methylphenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
902		2-{1-(2-chlorophenyl)-5-[5-(4-fluoro-3-methylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
903		2-{1-(2-chlorophenyl)-5-[5-(3,4-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
904		2-[1-(2-chlorophenyl)-5-{5-[4-(phenyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
905		2-[1-(2-chlorophenyl)-5-{5-[4-chloro-2-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
906		2-{1-(2-chlorophenyl)-5-[5-(2,5-dichlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol

907		2-[5-{5-[2-chloro-4-(ethyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
908		2-{1-(2-chlorophenyl)-5-[5-(3-chlorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
909		2-{1-(2-chlorophenyl)-5-[5-(1H-indol-4-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
910		2-[1-(2-chlorophenyl)-5-{5-[2-chloro-4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
911		N-(3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)methanesulfonamide
912		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzenesulfonamide
913		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-(1-methylethyl)benzamide
914		2-[1-(2-chlorophenyl)-5-{5-[4-fluoro-3-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
915		2-[5-{5-[3,5-bis(trifluoromethyl)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
916		2-[5-(5-biphenyl-4-yl-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol

917		2-[1-(2-chlorophenyl)-5-{5-[4-(1-methylethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
918		2-[1-(2-chlorophenyl)-5-(5-ethyl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
919		2-[1-(2-chlorophenyl)-5-(5-{3-fluoro-4-[(phenylmethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
920		2-[1-(2-chlorophenyl)-5-{5-[3-chloro-4-(trifluoromethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
921		2-[1-(2-chlorophenyl)-5-{5-[4-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
922		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenol
923		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzoic acid
924		2-{1-(2-chlorophenyl)-5-[5-(3,4-dihydro-2H-1,5-benzodioxepin-7-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
925		2-{1-(2-chlorophenyl)-5-[5-(2,3-dihydro-1,4-benzodioxin-6-yl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
926		2-{1-(2-chlorophenyl)-5-[5-(2-fluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol

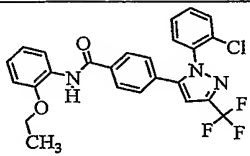
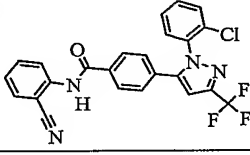
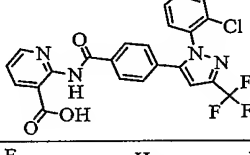
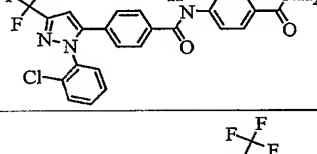
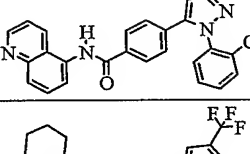
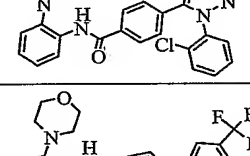
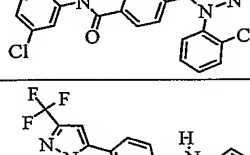
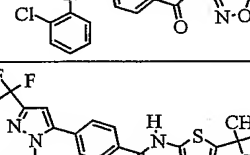
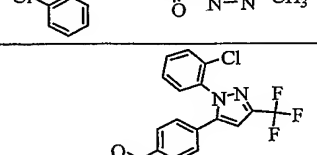
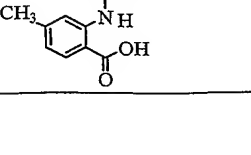
927		2-[1-(2-chlorophenyl)-5-(5-{3-[(1-methylethyl)oxy]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
928		1-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)ethanone
929		2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenol
930		1-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)ethanone
931		2-[1-(2-chlorophenyl)-5-{5-[5-methyl-2-(methoxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
932		2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl 1,1-dimethylethyl carbonate
933		2-[5-{5-[2-chloro-6-(methoxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
934		2-[1-(2-chlorophenyl)-5-[5-(1-methyl-1H-pyrazol-4-yl)-2-thienyl]-1H-pyrazol-3-yl]propan-2-ol
935		4-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}ethyl)benzoic acid
936		2-[1-(2-chlorophenyl)-5-{5-[(1E)-1-ethylbut-1-en-1-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

937		2-[1-(2-chlorophenyl)-5-{5-[3-(ethylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
938		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl} benzonitrile
939		2-[1-(2-chlorophenyl)-5-{5-[3-fluoro-4-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
940		2-{1-(2-chlorophenyl)-5-[5-(2,5-difluorophenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol
941		2-[1-(2-chlorophenyl)-5-(5-{(E)-2-[4-(trifluoromethyl)phenyl]ethenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
942		2-[1-(2-chlorophenyl)-5-{5-[2-(ethyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
943		2-{5-[5-(1-benzothien-3-yl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
944		ethyl 2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl} benzoate
945		2-[1-(2-chlorophenyl)-5-{5-[(E)-2-(4-fluorophenyl)ethenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
946		2-{1-(2-chlorophenyl)-5-[5-(4-ethenylphenyl)-2-thienyl]-1H-pyrazol-3-yl}propan-2-ol

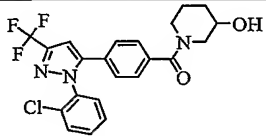
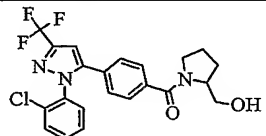
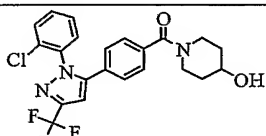
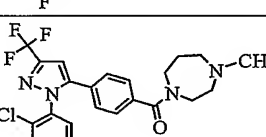
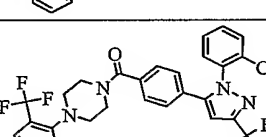
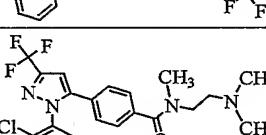
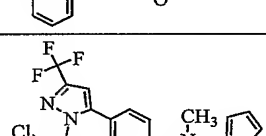
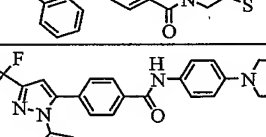
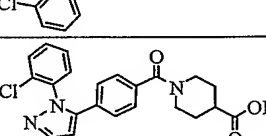
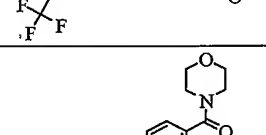
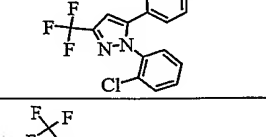
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948		2-{5-[5-(3-chloro-4-fluorophenyl)-2-thienyl]-1-(2-chlorophenyl)-1H-pyrazol-3-yl}propan-2-ol
949		1-{5'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2,2'-bithien-5-yl}ethanone
950		2-[1-(2-chlorophenyl)-5-{5-[4-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
951		2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzaldehyde
952		2-[5-{5-[2,5-bis(methyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
953		2-[1-(2-chlorophenyl)-5-(5-naphthalen-1-yl-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
954		2-[1-(2-chlorophenyl)-5-{5-[3-(methyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
955		2-[5-(5-biphenyl-2-yl-2-thienyl)-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol
956		2-[5-{5-[5-chloro-2-(ethyloxy)phenyl]-2-thienyl}-1-(2-chlorophenyl)-1H-pyrazol-3-yl]propan-2-ol

957		2-[1-(2-chlorophenyl)-5-{5-[2-(ethylthio)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
958		4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-2,6-dimethylphenol
959		2-[1-(2-chlorophenyl)-5-{5-[2-(1-methylethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
960		2-[1-(2-chlorophenyl)-5-{5-[4-(ethyloxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
961		2-[1-(2-chlorophenyl)-5-{5-[1-(phenylmethyl)-1H-pyrazol-4-yl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
962		1,1-dimethylethyl (2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)carbamate
963		2-[1-(2-chlorophenyl)-5-{5-[(E)-2-[4-(methyloxy)phenyl]ethenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
964		N-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)acetamide
965		2-[1-(2-chlorophenyl)-5-{5-[(E)-2-(4-methylphenyl)ethenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
966		methyl (2E)-3-(4-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)prop-2-enoate

967		2-[1-(2-chlorophenyl)-5-{5-[4-fluoro-2-(methoxy)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
968		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}-N-ethylbenzamide
969		methyl (2E)-3-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)prop-2-enoate
970		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-morpholin-4-ylethyl)benzamide
971		N-(5-chloro-2-hydroxyphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
972		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-6-ylbenzamide
973		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3-dihydro-1,4-benzodioxin-6-yl)benzamide
974		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]phenyl}benzamide
975		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyanophenyl)benzamide
976		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]-5-methylbenzoic acid
977		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid

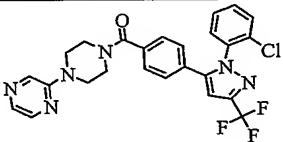
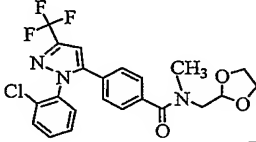
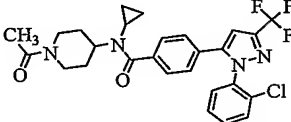
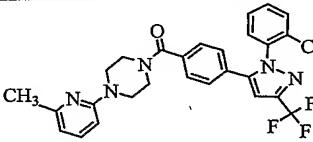
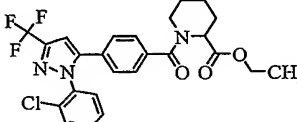
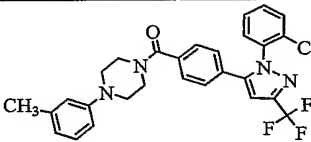
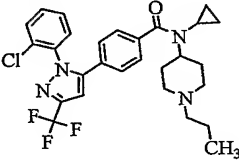
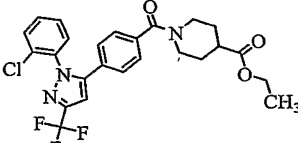
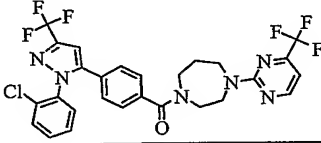
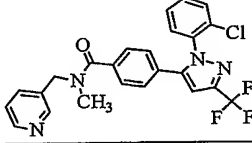
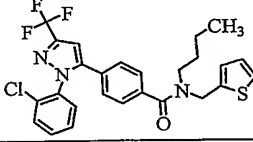
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979		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-cyanophenyl)benzamide
980		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]pyridine-3-carboxylic acid
981		N-[4-(aminocarbonyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
982		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-5-ylbenzamide
983		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-piperidin-1-ylphenyl)benzamide
984		N-(5-chloro-2-morpholin-4-ylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
985		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-isoxazol-3-ylbenzamide
986		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]benzamide
987		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-4-methylbenzoic acid

988		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1H-indazol-5-ylbenzamide
989		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(1-methylethyl)oxy]phenyl}benzamide
990		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-methyl-1,3-thiazol-2-yl)benzamide
991		N-(2-chloro-3-hydroxy-4-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
992		{4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino}phenyl}acetic acid
993		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(furan-2-ylmethyl)-N-methylbenzamide
994		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-2,6-dimethylmorpholine
995		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(ethylsulfonyl)piperazine
996		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,4-diazepane
997		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(pyridin-4-ylmethyl)benzamide
998		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)thiomorpholine

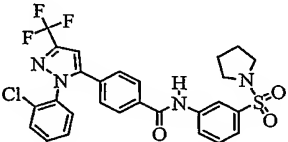
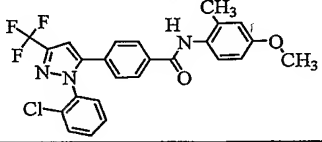
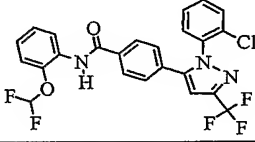
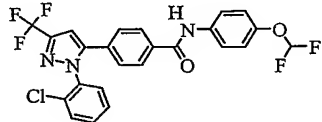
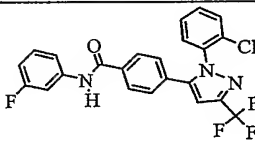
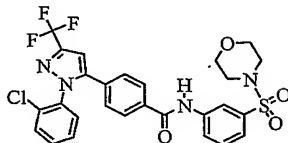
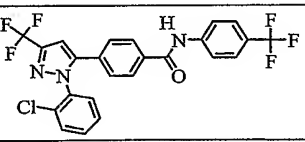
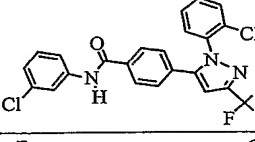
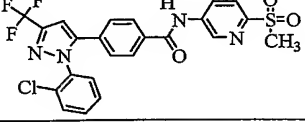
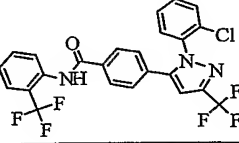
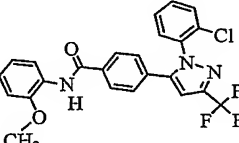
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1000		[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-2-yl]methanol
1001		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-ol
1002		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-methyl-1,4-diazepane
1003		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(trifluoromethyl)phenyl]piperazine
1004		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]-N-methylbenzamide
1005		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(2-thienylmethyl)benzamide
1006		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-piperidin-1-ylphenyl)benzamide
1007		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-4-carboxylic acid
1008		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)morpholine
1009		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1,3,4-thiadiazol-2-ylbenzamide

1010		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-hydroxy-3-methylphenyl)benzamide
1011		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(5-methyl-3-oxo-2,3-dihydro-1H-pyrazol-1-yl)phenyl]benzamide
1012		2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]benzonitrile
1013		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-pyridin-4-ylpiperazine
1014		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(methoxy)phenyl]piperazine
1015		2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]phenol
1016		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-2-one
1017		3-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4,4-dimethyl-1,3-oxazolidine
1018		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(tetrahydrofuran-2-ylmethyl)piperazine
1019		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-propanoylpiperazine

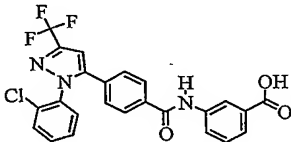
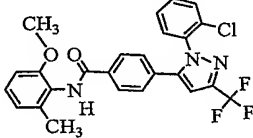
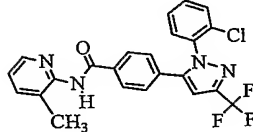
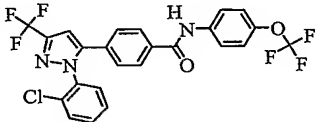
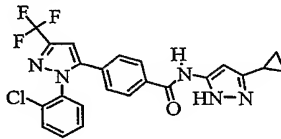
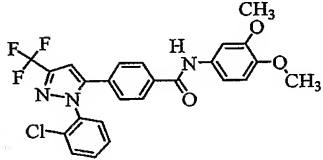
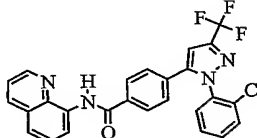
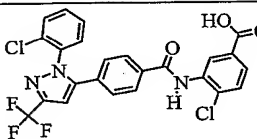
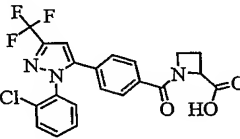
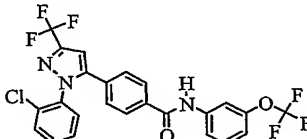
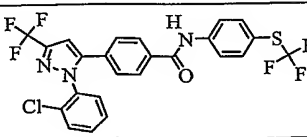
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1021		1,1-dimethylethyl [1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-3-yl]carbamate
1022		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)azetidine-3-carboxylic acid
1023		4-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]phenol
1024		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methoxy)ethyl]-N-(1-methylpiperidin-4-yl)benzamide
1025		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-methylpyrrolidin-3-yl)benzamide
1026		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,2,5,6-tetrahydropyridine-3-carboxylic acid
1027		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(1-methylpropyl)piperazine
1028		3-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-yl]-1H-indole
1029		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropyl-N-(1-methylpiperidin-4-yl)benzamide
1030		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]-N-ethylbenzamide

1031		2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]pyrazine
1032		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1,3-dioxolan-2-ylmethyl)-N-methylbenzamide
1033		N-(1-acetylpiperidin-4-yl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropylbenzamide
1034		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(6-methylpyridin-2-yl)piperazine
1035		ethyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-2-carboxylate
1036		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(3-methylphenyl)piperazine
1037		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclopropyl-N-(1-propylpiperidin-4-yl)benzamide
1038		ethyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-4-carboxylate
1039		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(trifluoromethyl)pyrimidin-2-yl]-1,4-diazepane
1040		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(pyridin-3-ylmethyl)benzamide
1041		N-butyl-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-thienylmethyl)benzamide

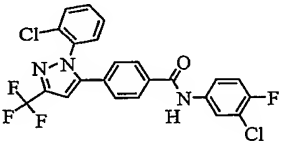
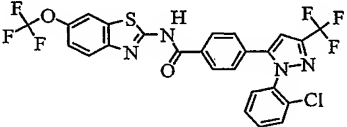
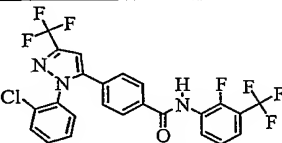
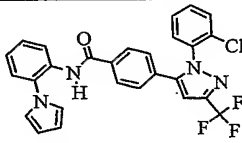
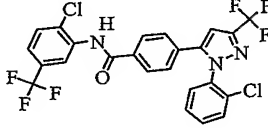
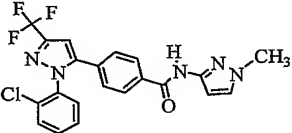
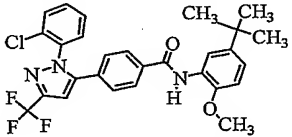
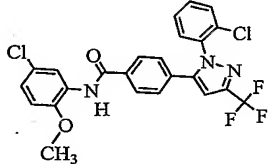
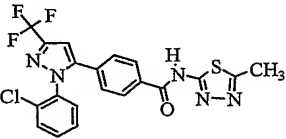
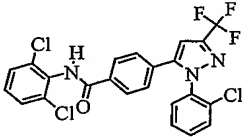
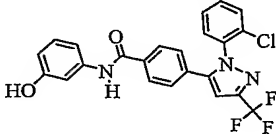
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1043		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[3-(methoxy)phenyl]piperazine
1044		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-methylpiperidin-4-yl)benzamide
1045		N-(2-amino-2-oxoethyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methylbenzamide
1046		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(furan-2-ylcarbonyl)piperazine
1047		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(2-fluorophenyl)piperazine
1048		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(methoxy)phenyl]piperazine
1049		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(2-thienyl)ethyl]piperazine
1050		4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid
1051		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(piperidin-1-ylsulfonyl)phenyl]benzamide
1052		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1,3-thiazol-2-ylbenzamide

1053		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(pyrrolidin-1-ylsulfonyl)phenyl]benzamide
1054		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-4-(methoxy)phenyl]benzamide
1055		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(difluoromethyl)oxy]phenyl}benzamide
1056		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(difluoromethyl)oxy]phenyl}benzamide
1057		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-fluorophenyl)benzamide
1058		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(morpholin-4-ylsulfonyl)phenyl]benzamide
1059		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(trifluoromethyl)phenyl]benzamide
1060		N-(3-chlorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1061		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(methylsulfonyl)pyridin-3-yl]benzamide
1062		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(trifluoromethyl)phenyl]benzamide
1063		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methoxy)phenyl]benzamide

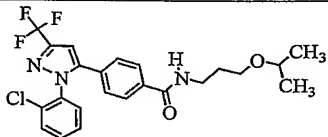
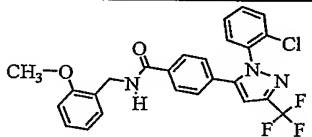
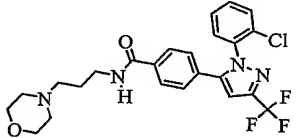
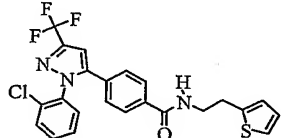
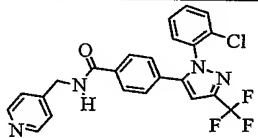
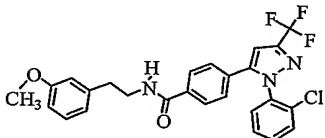
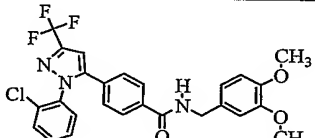
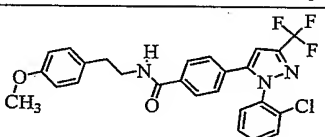
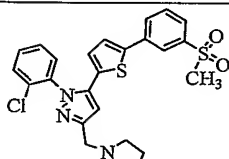
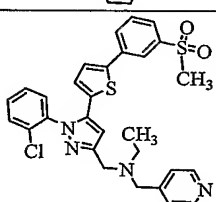
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1065		N-(2-chlorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1066		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(methoxy)phenyl]benzamide
1067		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(trifluoromethyl)phenyl]benzamide
1068		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(trifluoromethyl)oxy]phenyl}benzamide
1069		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(pyridin-4-ylcarbonyl)phenyl]benzamide
1070		N-[3,5-bis(methoxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1071		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-pyridin-3-ylbenzamide
1072		N-(2-chloro-5-hydroxyphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1073		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-pyridin-4-ylbenzamide
1074		N-1,3-benzodioxol-5-yl-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide

1075		3-([(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino)benzoic acid
1076		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-6-(methoxy)phenyl]benzamide
1077		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-methylpyridin-2-yl)benzamide
1078		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(trifluoromethyl)oxy]phenyl}benzamide
1079		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyclopropyl-1H-pyrazol-5-yl)benzamide
1080		N-[3,4-bis(methoxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1081		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-quinolin-8-ylbenzamide
1082		4-chloro-3-([(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino)benzoic acid
1083		1-([(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]azetidine-2-carboxylic acid
1084		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{3-[(trifluoromethyl)oxy]phenyl}benzamide
1085		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(trifluoromethyl)thio]phenyl}benzamide

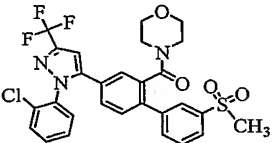
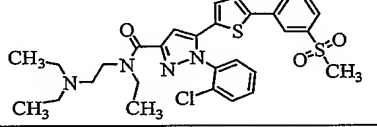
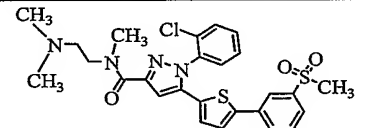
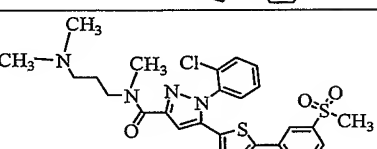
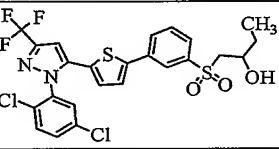
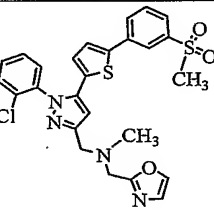
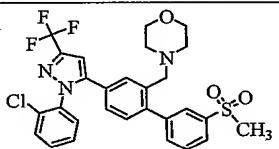
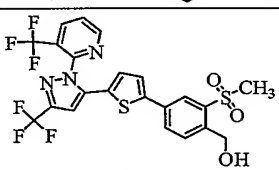
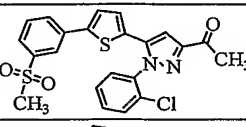
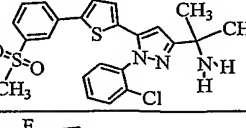
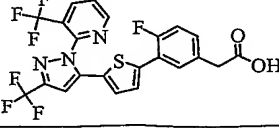
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1087		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-methylpyridin-2-yl)benzamide
1088		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-methyl-5-(methoxy)phenyl]benzamide
1089		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1-methyl-1H-pyrazol-5-yl)benzamide
1090		N-[5-(acetylamino)-2-chlorophenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1091		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]benzamide
1092		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-chloro-2-(trifluoromethyl)phenyl]benzamide
1093		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methylpyridin-2-yl)benzamide
1094		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methoxy)-5-(trifluoromethyl)phenyl]benzamide
1095		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(6-methylpyridin-2-yl)benzamide
1096		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(methoxy)biphenyl-3-yl]benzamide

1097		N-(3-chloro-4-fluorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1098		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{6-[(trifluoromethyl)oxy]-1,3-benzothiazol-2-yl}benzamide
1099		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-fluoro-3-(trifluoromethyl)phenyl]benzamide
1100		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(1H-pyrrol-1-yl)phenyl]benzamide
1101		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-chloro-5-(trifluoromethyl)phenyl]benzamide
1102		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1-methyl-1H-pyrazol-3-yl)benzamide
1103		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylethyl)-2-(methyloxy)phenyl]benzamide
1104		N-[5-chloro-2-(methyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1105		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methyl-1,3,4-thiadiazol-2-yl)benzamide
1106		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,6-dichlorophenyl)benzamide
1107		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-hydroxyphenyl)benzamide

1108		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-6-(methoxy)benzoic acid
1109		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methylisoxazol-3-yl)benzamide
1110		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-fluoro-4-(methoxy)phenyl]benzamide
1111		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(dimethylamino)phenyl]benzamide
1112		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(furan-2-ylmethyl)benzamide
1113		ethyl 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]piperidine-1-carboxylate
1114		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(tetrahydrofuran-2-ylmethyl)benzamide
1115		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-thienylmethyl)benzamide
1116		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]benzamide
1117		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(dimethylamino)-2,2-dimethylpropyl]benzamide
1118		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-pyrrolidin-1-ylethyl)benzamide

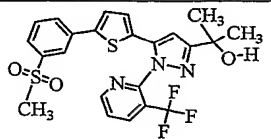
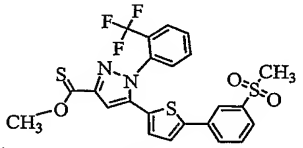
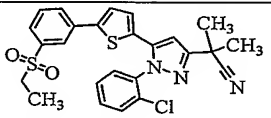
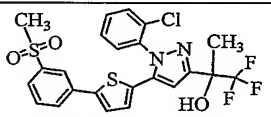
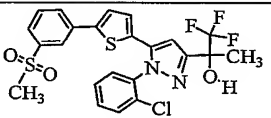
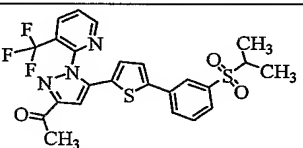
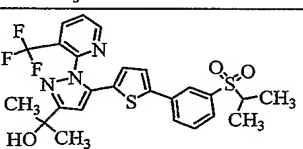
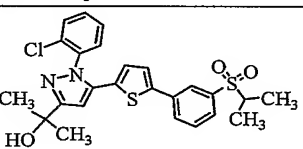
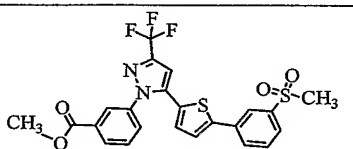
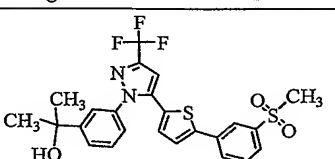
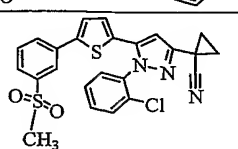
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1120		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-(methoxy)phenyl}methyl}benzamide
1121		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-morpholin-4-ylpropyl)benzamide
1122		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(2-thienyl)ethyl]benzamide
1123		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(pyridin-4-ylmethyl)benzamide
1124		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[3-(methoxy)phenyl]ethyl}benzamide
1125		N-{[3,4-bis(methoxy)phenyl]methyl}-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1126		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[4-(methoxy)phenyl]ethyl}benzamide
1127		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylmethyl)-1H-pyrazole
1128		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(pyridin-4-ylmethyl)ethanamine

1129		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylcarbonyl)-1H-pyrazole
1130		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl}-4-methylpiperidine
1131		2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide
1133		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-[3-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxamide
1134		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanenitrile
1135		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-[1-methyl-1-(2lambda~5~-triaz-1-en-2-yn-1-yl)ethyl]-1H-pyrazole
1136		5-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-1H-tetrazole
1137		4'-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-sulfonamide
1138		methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-carboxylate
1139		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-carboxylic acid
1140		1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide

1142		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}carbonyl)morpholine
1143		1-(2-chlorophenyl)-N-[2-(diethylamino)ethyl]-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1144		1-(2-chlorophenyl)-N-[2-(dimethylamino)ethyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1145		1-(2-chlorophenyl)-N-[3-(dimethylamino)propyl]-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1146		1-[(3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)sulfonyl]butan-2-ol
1147		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N-methyl-N-(1,3-oxazol-2-ylmethyl)methanamine
1148		4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}methyl)morpholine
1149		[2-(methylsulfonyl)-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]methanol
1150		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone
1151		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-amine
1152		[4-fluoro-3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetic acid

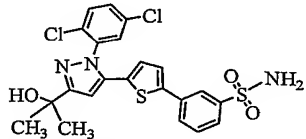
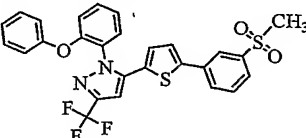
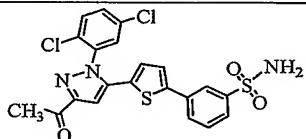
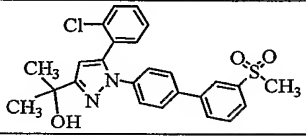
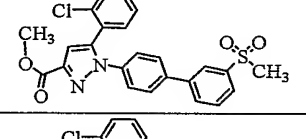
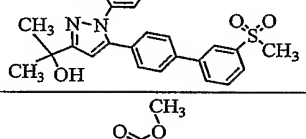
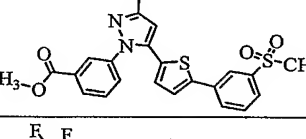
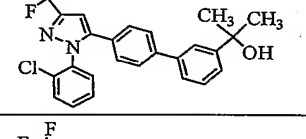
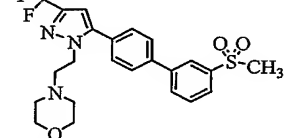
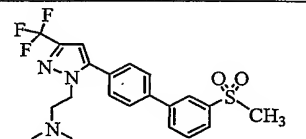
1153		methyl [3-methyl-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetate
1154		N-[[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]carbonyl]-N-methylglycine
1155		[3-methyl-4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]acetic acid
1156		methyl 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxylate
1157		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanol
1158		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl)propan-2-ol
1159		4-{1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1-methylethyl}morpholine
1160		1-(2-chlorophenyl)-3-(1-methyl-1-pyrrolidin-1-ylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole
1161		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide
1162		1-(2-chlorophenyl)-N-methyl-N-(methoxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1163		1-(2-chlorophenyl)-N-(methoxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1164		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1,1,1,3,3,3-hexafluoropropan-2-ol
1165		2-methyl-2-[3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]propanoic acid

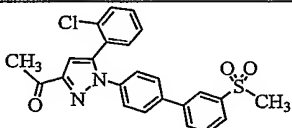
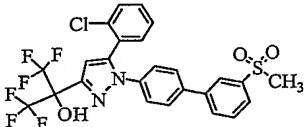
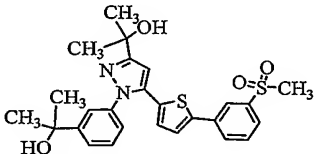
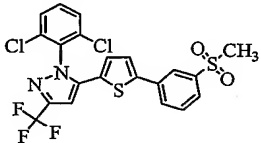
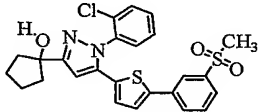
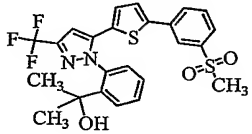
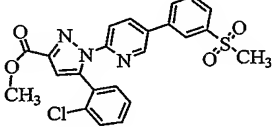
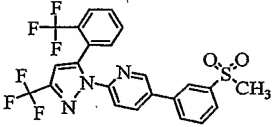
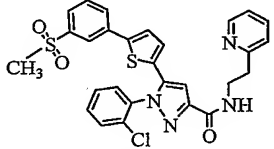
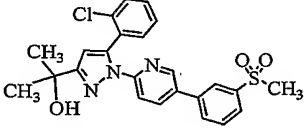
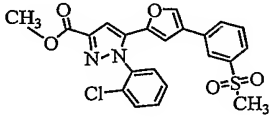
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1167		1-(2-chlorophenyl)-5-{3'-[(1-methylethyl)sulfonyl]biphenyl-4-yl}-3-(trifluoromethyl)-1H-pyrazole
1168		5-{3'-[(1-methylethyl)sulfonyl]biphenyl-4-yl}-3-(trifluoromethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
1169		2-[5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-3-(trifluoromethyl)pyridine
1170		methyl 5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazole-3-carboxylate
1171		N-[3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)sulfonyl]-2,2-dimethylpropanamide
1172		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-N,N-dimethylpropan-2-amine
1173		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-1-one
1174		3-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]pentan-3-ol
1175		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-1-ol
1176		(1E)-1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone oxime
1177		(1E)-1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone O-methyloxime

1178		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl)propan-2-ol
1179		O-methyl 5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carbothioate
1180		2-[1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanenitrile
1181		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1,1,1-trifluoropropan-2-ol
1182		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-1,1,1-trifluoropropan-2-ol
1183		1-{5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl} ethanone
1184		2-{5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl} propan-2-ol
1185		2-[1-(2-chlorophenyl)-5-(5-{3-[(1-methylethyl)sulfonyl]phenyl}-2-thienyl)-1H-pyrazol-3-yl]propan-2-ol
1186		methyl 3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzoate
1187		2-{3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl} propan-2-ol
1188		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopropanecarbonitrile

1189		3-[1-methyl-1-(methoxy)ethyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
1190		5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-3-[1-methyl-1-(methoxy)ethyl]-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
1191		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopentanecarbonitrile
1192		2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropan-1-amine
1193		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxylic acid
1194		1-(2-chlorophenyl)-N-ethyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carbothioamide
1195		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxamide
1196		N-(methylsulfonyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole-3-carboxamide
1198		3-(5-{1-[5-chloro-2-(phenyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)benzenesulfonamide
1201		2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl}propan-2-ol
1202		2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-3-yl}propan-2-ol

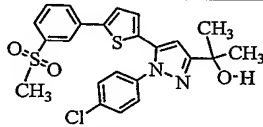
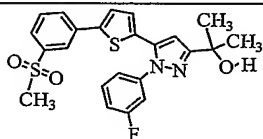
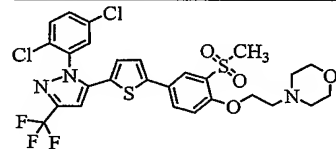
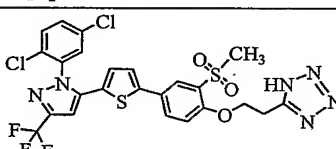
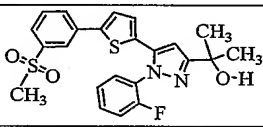
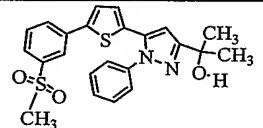
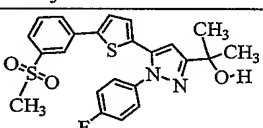
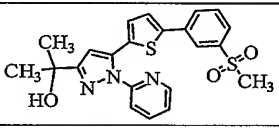
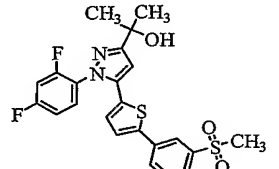
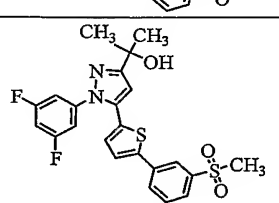
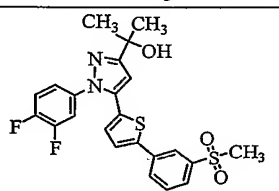
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1204		N-{2-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]-2-methylpropyl}formamide
1205		2-[3-(5-{1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)phenyl]-2-methylpropanoic acid
1206		1-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}ethanone
1207		2-{4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3'-(methylsulfonyl)biphenyl-2-yl}propan-2-ol
1208		methyl 4'-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-carboxylate
1209		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2,2,2-trifluoroethanol
1210		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(pyrrolidin-1-ylcarbonyl)-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
1211		3-[difluoro(methoxy)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazole
1212		2-(1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1213		1-(1-[5-chloro-2-(phenyloxy)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)ethanone

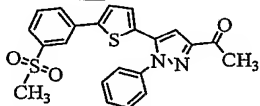
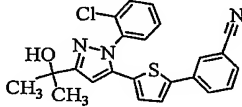
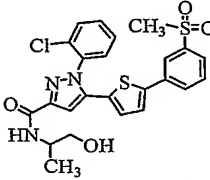
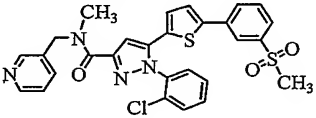
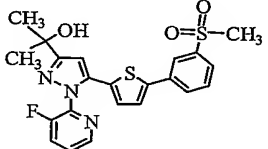
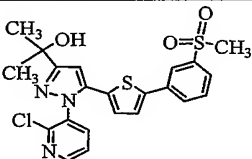
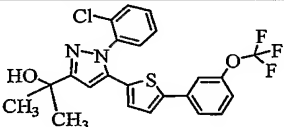
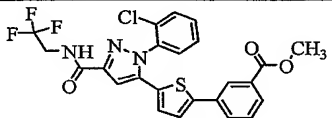
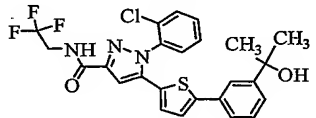
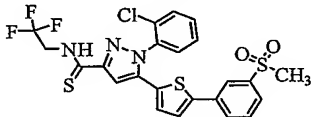
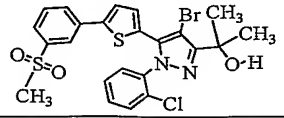
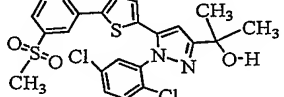
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1215		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(phenyloxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1216		3-{5-[3-acetyl-1-(2,5-dichlorophenyl)-1H-pyrazol-5-yl]-2-thienyl} benzenesulfonamide
1217		2-{5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1218		methyl 5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazole-3-carboxylate
1219		2-{1-(2-chlorophenyl)-5-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1220		methyl 1-{3-[(methyloxy)carbonyl]phenyl}-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylate
1221		2-{4'-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}propan-2-ol
1222		4-(2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}ethyl)morpholine
1223		1-methyl-4-(2-{5-[3'-(methylsulfonyl)biphenyl-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl}ethyl)piperazine

1224		1-{5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}ethanone
1225		2-{5-(2-chlorophenyl)-1-[3'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}-1,1,1,3,3,3-hexafluoropropan-2-ol
1226		2-{3-[3-(1-hydroxy-1-methylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl]-1H-pyrazol-1-yl]phenyl}propan-2-ol
1227		1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
1228		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopentanol
1229		2-{2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}propan-2-ol
1230		methyl 5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazole-3-carboxylate
1231		5-[3-(methylsulfonyl)phenyl]-2-{3-(trifluoromethyl)-5-[2-(trifluoromethyl)phenyl]-1H-pyrazol-1-yl}pyridine
1232		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2-pyridin-2-ylethyl)-1H-pyrazole-3-carboxamide
1233		2-[5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]propan-2-ol
1234		methyl 1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]furan-2-yl}-1H-pyrazole-3-carboxylate

1235		2-[1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]furan-2-yl}-1H-pyrazol-3-yl]propan-2-ol
1236		5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazole-3-carboxamide
1237		N-methyl-N-(methoxy)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazole-3-carboxamide
1238		methyl 1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxylate
1239		2-[1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1240		2-(3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propan-2-ol
1241		2-(4-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)propan-2-ol
1242		1-[1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone
1243		2-(1-[(2,4-difluorophenyl)methyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1244		methyl 5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazole-3-carboxylate
1245		1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]cyclopropanol

1246		2-[5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazol-3-yl]propan-2-ol
1247		4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenol
1248		1-[5-(2-chlorophenyl)-1-{5-[3-(methylsulfonyl)phenyl]pyridin-2-yl}-1H-pyrazol-3-yl]ethanone
1249		1-[5-(2-chlorophenyl)-1-{6-[3-(methylsulfonyl)phenyl]pyridin-3-yl}-1H-pyrazol-3-yl]ethanone
1250		2-[1-(2-chlorophenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1251		2-chloro-6-methyl-3-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenol
1252		2-[3-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]propan-2-ol
1253		2-[4-(5-{3-(trifluoromethyl)-1-[3-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-5-yl}-2-thienyl)phenyl]propan-2-ol
1254		1-[5-(5-{1-[(2,4-difluorophenyl)methyl]-3-(trifluoromethyl)-1H-pyrazol-5-yl}-2-thienyl)pyridin-2-yl]piperazine
1255		2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethanol
1256		2-[1-(3-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

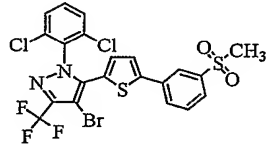
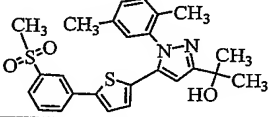
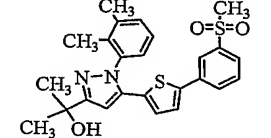
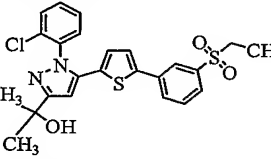
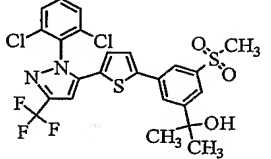
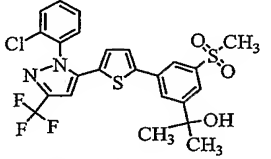
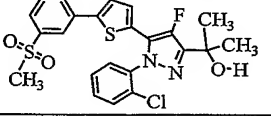
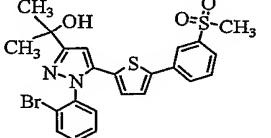
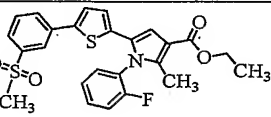
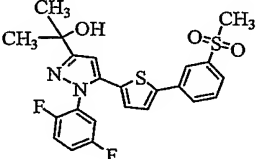
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1258		2-[1-(3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1259		4-(2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethyl)morpholine
1260		5-(2-{[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]oxy}ethyl)-1H-tetrazole
1261		2-[1-(2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1262		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-phenyl-1H-pyrazol-3-yl)propan-2-ol
1263		2-[1-(4-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1264		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-pyridin-2-yl-1H-pyrazol-3-yl)propan-2-ol
1265		2-[1-(2,4-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1266		2-[1-(3,5-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1267		2-[1-(3,4-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

1268		1-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-phenyl-1H-pyrazol-3-yl)ethanone
1269		3-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}benzonitrile
1270		1-(2-chlorophenyl)-N-(2-hydroxy-1-methylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazole-3-carboxamide
1271		1-(2-chlorophenyl)-N-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(pyridin-3-ylmethyl)-1H-pyrazole-3-carboxamide
1272		2-[1-(3-fluoropyridin-2-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1273		2-[1-(2-chloropyridin-3-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1274		2-[1-(2-chlorophenyl)-5-{5-[3-[(trifluoromethyl)oxy]phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1275		methyl 3-{5-[1-(2-chlorophenyl)-3-{[(2,2,2-trifluoroethyl)amino]carbonyl}-1H-pyrazol-5-yl]-2-thienyl}benzoate
1276		1-(2-chlorophenyl)-5-{5-[3-(1-hydroxy-1-methylethyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide
1277		1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carbothioamide
1278		2-[4-bromo-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1279		2-[1-(2,5-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

1280		2-[1-(2,4-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1281		2-[1-(2,3-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1282		2-{1-(2-chlorophenyl)-5-[4-(1H-indol-6-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol
1283		2-{1-(2-chlorophenyl)-5-[4-(1H-indol-5-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol
1284		2-{1-(2-chlorophenyl)-5-[4-(1-methyl-1H-indol-5-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol
1285		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-ol
1286		2-{1-(2-chlorophenyl)-5-[4-(1H-indol-4-yl)phenyl]-1H-pyrazol-3-yl}propan-2-ol
1287		2-{1-(2-chlorophenyl)-5-[3'-(trifluoromethyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1288		2-{1-(2-chlorophenyl)-5-[2'-chloro-4'-(trifluoromethyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1289		5-{4-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]phenyl}thiophene-2-carbaldehyde
1290		1-(5-{4-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]phenyl}-2-thienyl)ethanone

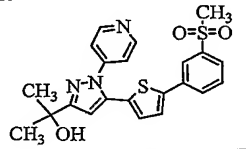
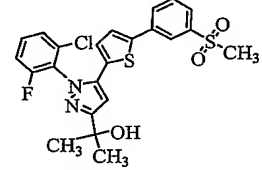
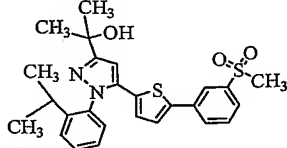
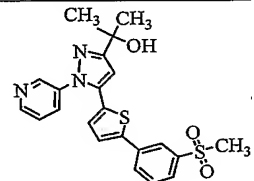
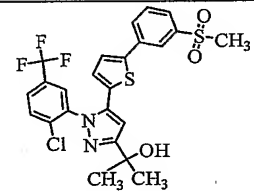
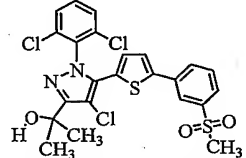
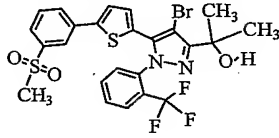
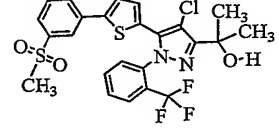
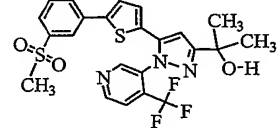
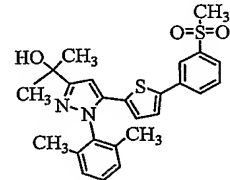
1291		2-[1-(2-chlorophenyl)-5-{4-[2-(methyloxy)pyrimidin-5-yl]phenyl}-1H-pyrazol-3-yl]propan-2-ol
1292		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-N-(1-methylethyl)biphenyl-3-carboxamide
1293		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-N-[2-(dimethylamino)ethyl]biphenyl-3-carboxamide
1294		2-[4-chloro-1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1295		4'-[1-(2-chlorophenyl)-3-(1-methylethenyl)-1H-pyrazol-5-yl]biphenyl-3-yl piperidine-1-carboxylate
1296		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl (1-methylethyl)carbamate
1297		ethyl ({4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}oxy)acetate
1298		2-({4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}oxy)-N,N-diethylacetamide
1299		2-{1-(2-chlorophenyl)-5-[4'-fluoro-3'-(trifluoromethyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1300		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-sulfonamide
1301		2-[1-(2-chlorophenyl)-4-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

1302		2-[1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]-2-methylpropanoic acid
1303		ethyl 3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)benzoate
1304		2-[4-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-2-(methylsulfonyl)phenyl]propan-2-ol
1305		2-{1-(2-chlorophenyl)-5-[4'-(methylsulfonyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1306		4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-4-sulfonamide
1307		2-{1-(2-chlorophenyl)-5-[3'-(1-hydroxy-1-methylethyl)biphenyl-4-yl]-1H-pyrazol-3-yl}propan-2-ol
1308		2-[3-{5-[1-(2,5-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol
1309		N-{4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}methanesulfonamide
1310		N-{4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}-1,1,1-trifluoromethanesulfonamide
1311		N-{4'-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]biphenyl-3-yl}acetamide
1312		2-[1-(2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

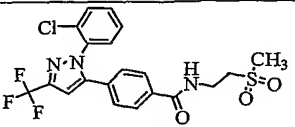
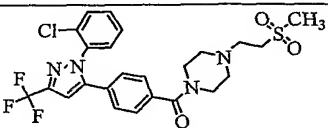
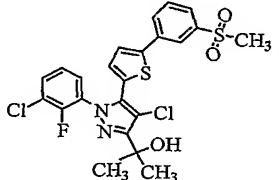
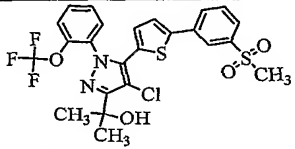
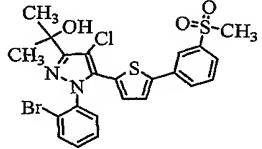
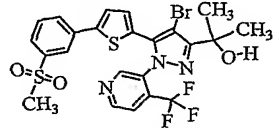
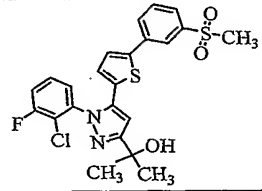
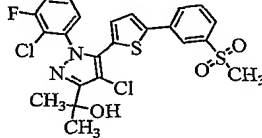
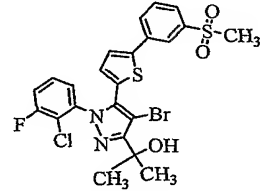
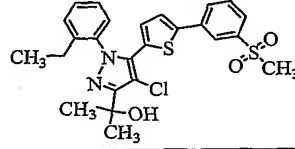
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1314		2-[1-(2,5-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol
1315		2-[1-(2,3-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol
1316		2-[1-(2-chlorophenyl)-5-{5-[3-(ethylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol
1317		2-[3-{5-[1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol
1318		2-[3-{5-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-2-thienyl}-5-(methylsulfonyl)phenyl]propan-2-ol
1319		2-[1-(2-chlorophenyl)-4-fluoro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1320		2-[1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol
1321		ethyl 1-(2-fluorophenyl)-2-methyl-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrrole-3-carboxylate
1322		2-[1-(2,5-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl]propan-2-ol

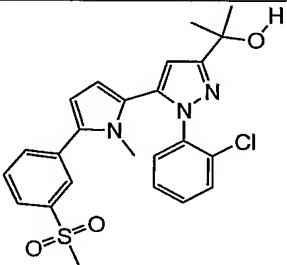
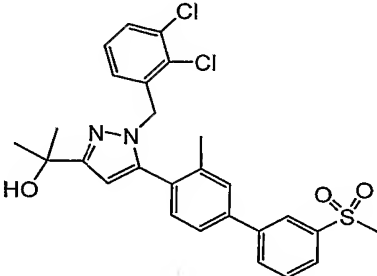
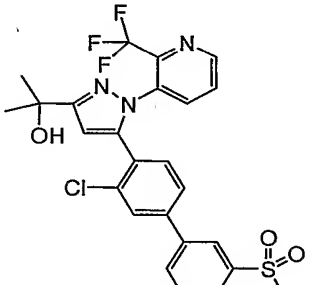
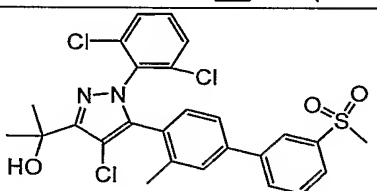
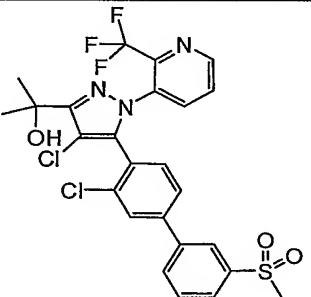
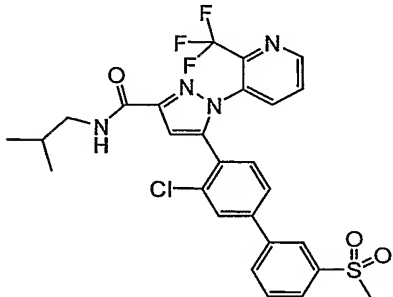
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1324		2-[1-(3,4-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1325		2-[1-(2,6-dichloro-3-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1326		2-[1-(2,3-difluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1327		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethyl)oxy]phenyl}-1H-pyrazol-3-yl)propan-2-ol
1328		2-[1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1329		2-[1-(2-ethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1330		2-[5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-propylphenyl)-1H-pyrazol-3-yl]propan-2-ol
1331		2-[1-(5-fluoro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1332		2-[1-(2-chlorophenyl)-5-{5-[3-(1-methylethyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

1333		2-(1-[2-fluoro-3-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1334		2-[1-(2-chloro-5-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1335		2-[1-(2-chloro-6-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1336		2-[1-(5-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1337		(1E)-1-[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]ethanone O-[2-(dimethylamino)ethyl]oxime
1338		2-[3-(1-hydroxy-1-methylethyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-1-yl]-6-(trifluoromethyl)phenol
1339		2-[4-bromo-1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1340		2-[1-(3-chloro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1341		2-(1-[2,4-dichloro-6-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1342		2-[1-(2,2-difluoro-1,3-benzodioxol-4-yl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

1343		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-pyridin-4-yl-1H-pyrazol-3-yl)propan-2-ol
1344		2-[1-(2-chloro-6-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1345		2-(1-[2-(1-methylethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1346		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-pyridin-3-yl-1H-pyrazol-3-yl)propan-2-ol
1347		2-(1-[2-chloro-5-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1348		2-[4-chloro-1-(2,6-dichlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1349		2-(4-bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl)propan-2-ol
1350		2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-3-yl)propan-2-ol
1351		2-(5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol
1352		2-[1-(2,6-dimethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

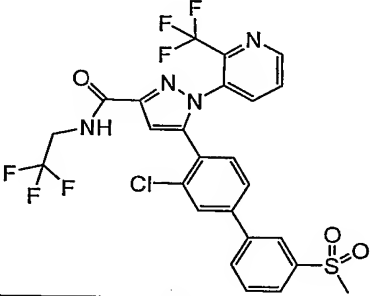
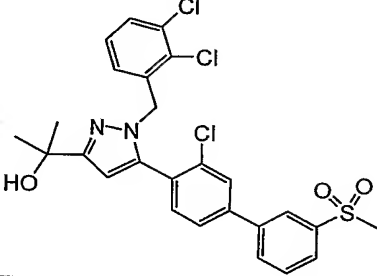
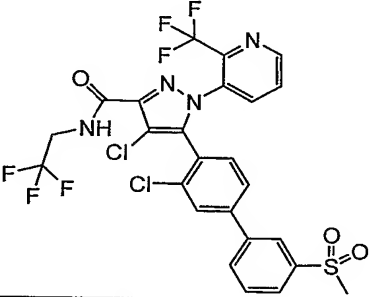
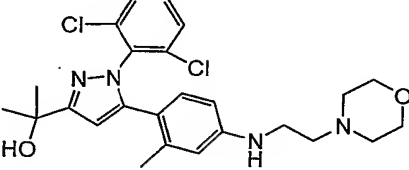
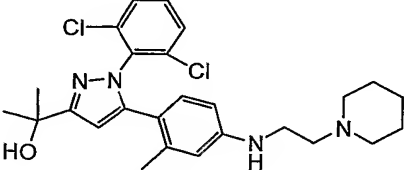
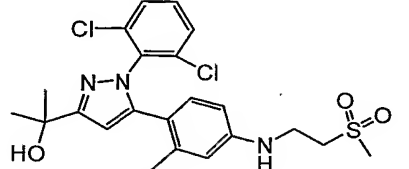
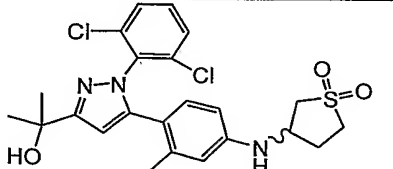
1353		2-(1-[2-fluoro-6-(trifluoromethyl)phenyl]-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl)propan-2-ol
1354		methyl N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)glycinate
1355		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-oxotetrahydro-3-thienyl)benzamide
1356		methyl N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-beta-alaninate
1357		2-[4-bromo-1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1358		2-[4-bromo-1-(2-ethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1359		2-(4-bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethyl)oxy]phenyl}-1H-pyrazol-3-yl)propan-2-ol
1360		2-[4-bromo-1-(2-bromophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1361		2-[1-(3-fluoro-2-methylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1362		N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)glycine
1363		N-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-beta-alanine

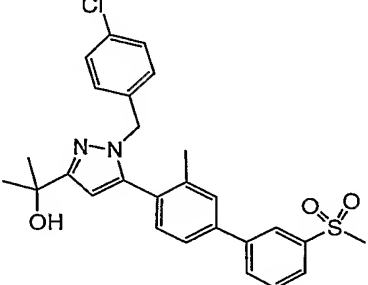
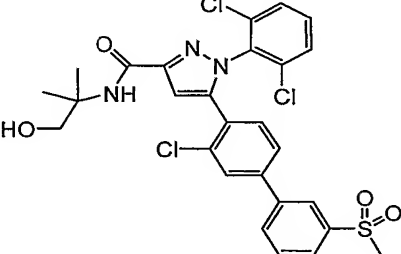
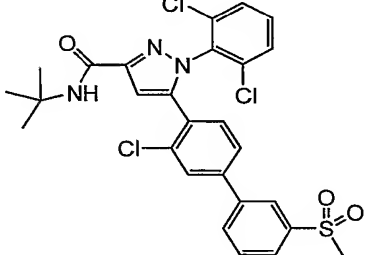
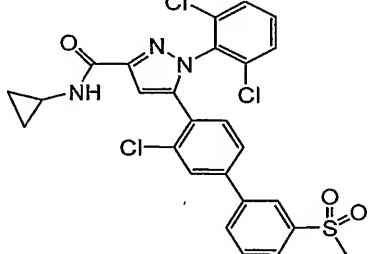
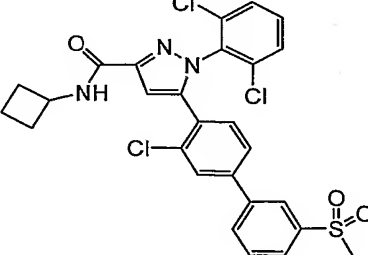
1364		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methylsulfonyl)ethyl]benzamide
1365		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[2-(methylsulfonyl)ethyl]piperazine
1366		2-[4-chloro-1-(3-chloro-2-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1367		2-(4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-{2-[(trifluoromethyl)oxy]phenyl}-1H-pyrazol-3-yl)propan-2-ol
1368		2-[1-(2-bromophenyl)-4-chloro-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1369		2-(4-bromo-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[4-(trifluoromethyl)pyridin-3-yl]-1H-pyrazol-3-yl)propan-2-ol
1370		2-[1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1371		2-[4-chloro-1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1372		2-[4-bromo-1-(2-chloro-3-fluorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol
1373		2-[4-chloro-1-(2-ethylphenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]propan-2-ol

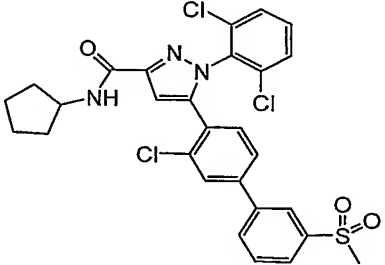
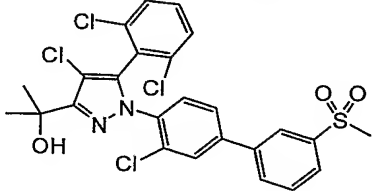
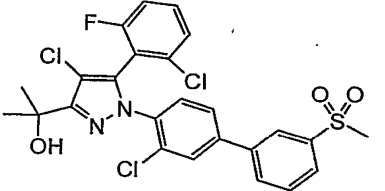
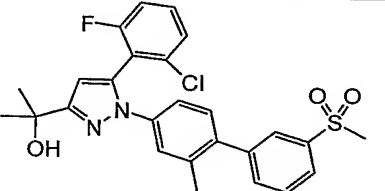
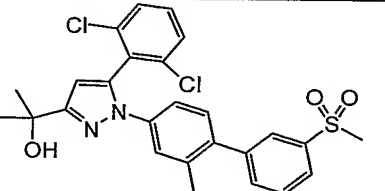
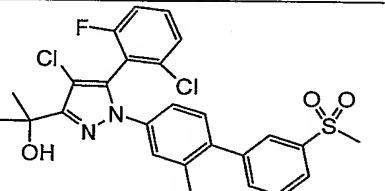
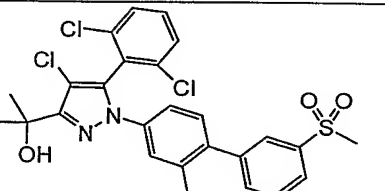
1383		2-(1-(2-chlorophenyl)-5-(1-methyl-5-(3-(methylsulfonyl)phenyl)-1H-pyrrol-2-yl)-1H-pyrazol-3-yl)propan-2-ol
1384		2-(1-(2,3-dichlorobenzyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1385		2-(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
1386		2-(4-chloro-1-(2,6-dichlorophenyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1387		2-(4-chloro-5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
1388		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-isobutyl-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazole-3-carboxamide

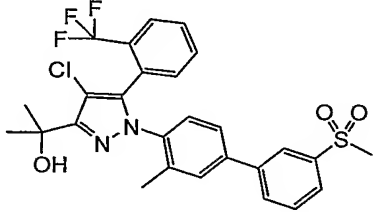
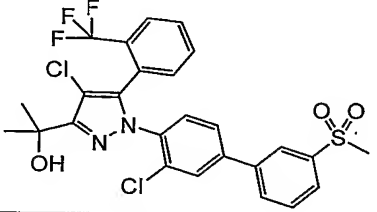
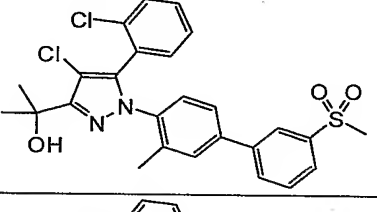
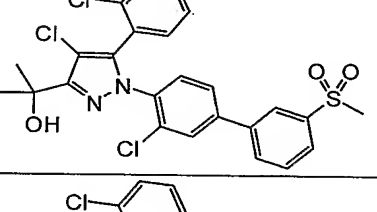
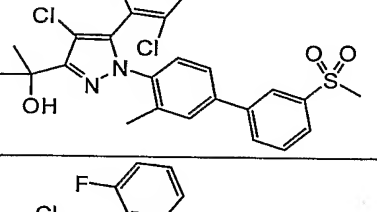
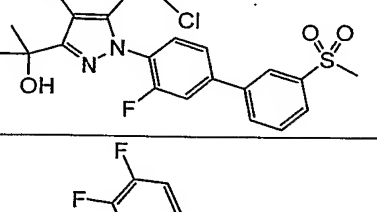
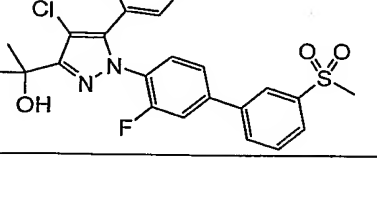
1389		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-N-isobutyl-1H-pyrazole-3-carboxamide
1390		2-(5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
1391		2-(4-chloro-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazol-3-yl)propan-2-ol
1392		2-(4-chloro-1-(2-chlorophenyl)-5-(1-methyl-5-(3-(methylsulfonyl)phenyl)-1H-pyrrol-2-yl)-1H-pyrazol-3-yl)propan-2-ol
1393		2-(1-(2,6-dichlorophenyl)-5-(1-methyl-5-(3-(methylsulfonyl)phenyl)-1H-pyrrol-2-yl)-1H-pyrazol-3-yl)propan-2-ol
1394		3-(4-methylpiperazin-1-yl)propyl 4'-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3'-methylbiphenyl-3-ylcarbamate

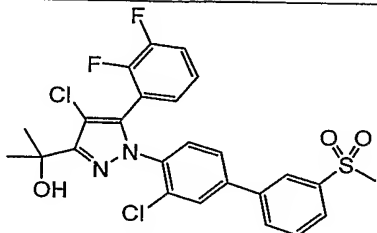
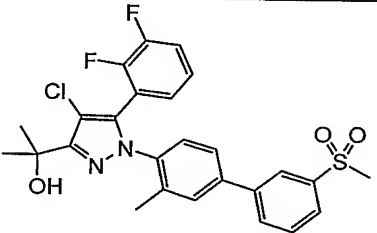
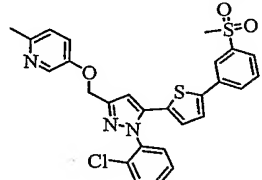
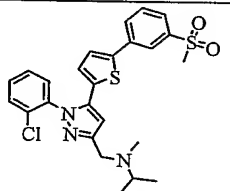
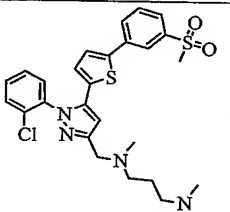
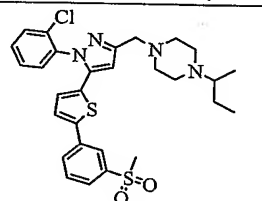
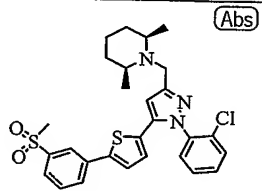
1395		2-(3'-chloro-4'-(1-(2,6-dichlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)biphenyl-3-yl)propan-2-ol
1396		(E)-3-(4-(1-(2,6-dichlorophenyl)-3-(2-hydroxypropan-2-yl)-1H-pyrazol-5-yl)-3-methylstyryl)benzoic acid
1397		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-N-(2,2,2-trifluoroethyl)-1H-pyrazole-3-carboxamide
1398		2-(1-(2,6-dichlorophenyl)-5-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1399		2-(4-chloro-3-(2-hydroxypropan-2-yl)-5-(5-(3-(methylsulfonyl)phenyl)thiophen-2-yl)-1H-pyrazol-1-yl)-6-(trifluoromethyl)phenol
1400		2-(1-(2,3-dichlorobenzyl)-5-(3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol

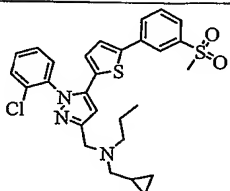
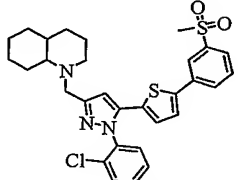
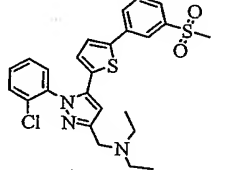
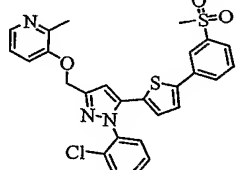
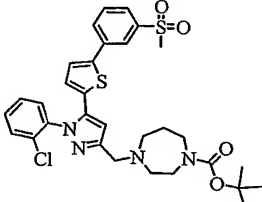
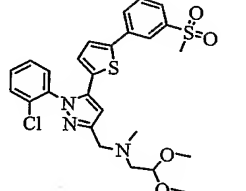
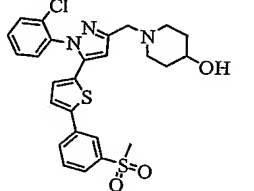
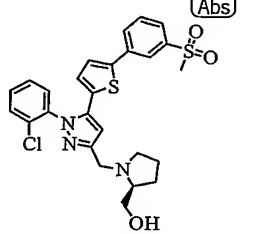
1401		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-(2,2,2-trifluoroethyl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazole-3-carboxamide
1402		2-(5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,3-dichlorobenzyl)-1H-pyrazol-3-yl)propan-2-ol
1403		4-chloro-5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-(2,2,2-trifluoroethyl)-1-(2-(trifluoromethyl)pyridin-3-yl)-1H-pyrazole-3-carboxamide
1404		2-(1-(2,6-dichlorophenyl)-5-(2-methyl-4-(2-morpholinoethylamino)phenyl)-1H-pyrazol-3-yl)propan-2-ol
1405		2-(1-(2,6-dichlorophenyl)-5-(2-methyl-4-(2-(piperidin-1-yl)ethylamino)phenyl)-1H-pyrazol-3-yl)propan-2-ol
1406		2-(1-(2,6-dichlorophenyl)-5-(2-methyl-4-(2-(methylsulfonyl)ethylamino)phenyl)-1H-pyrazol-3-yl)propan-2-ol
1407		2-[1-(2,6-dichlorophenyl)-5-{4-[(1,1-dioxido-2-methylphenyl)amino]-2-methylphenyl}-1H-pyrazol-3-yl]propan-2-ol

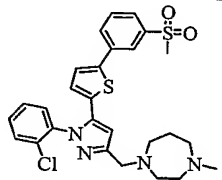
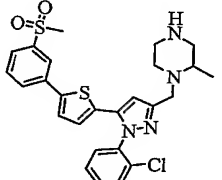
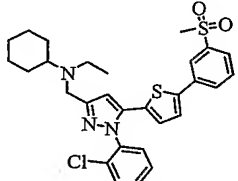
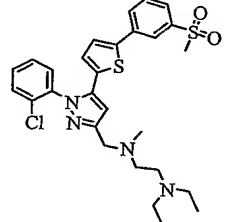
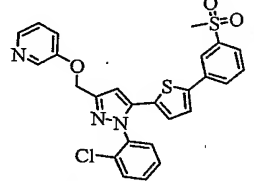
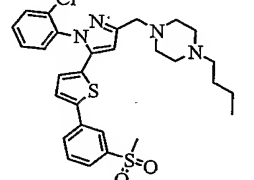
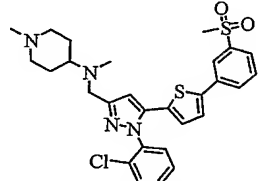
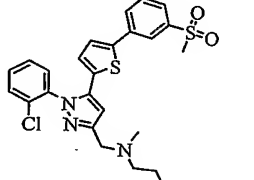
1408		2-(1-(4-chlorobenzyl)-5-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1409		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-N-(1-hydroxy-2-methylpropan-2-yl)-1H-pyrazole-3-carboxamide
1410		N-tert-butyl-5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide
1411		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-cyclopropyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide
1412		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-cyclobutyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide

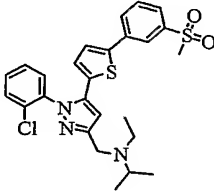
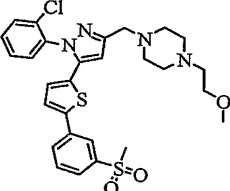
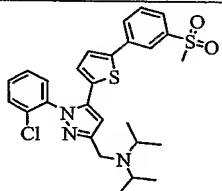
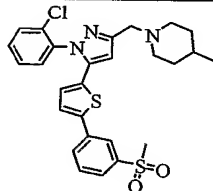
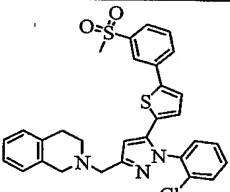
1413		5-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-N-cyclopentyl-1-(2,6-dichlorophenyl)-1H-pyrazole-3-carboxamide
1414		2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,6-dichlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
1415		2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2-chloro-6-fluorophenyl)-1H-pyrazol-3-yl)propan-2-ol
1416		2-(5-(2-chloro-6-fluorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1417		2-(5-(2,6-dichlorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1418		2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1419		2-(4-chloro-5-(2,6-dichlorophenyl)-1-(2-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol

1420		2-(4-chloro-1-(3-methyl-3'-(methanesulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
1421		2-(4-chloro-1-(3-chloro-3'-(methanesulfonyl)biphenyl-4-yl)-5-(2-(trifluoromethyl)phenyl)-1H-pyrazol-3-yl)propan-2-ol
1422		2-(4-chloro-5-(2-chlorophenyl)-1-(3-methyl-3'-(methanesulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1423		2-(4-chloro-1-(3-chloro-3'-(methanesulfonyl)biphenyl-4-yl)-5-(2-chlorophenyl)-1H-pyrazol-3-yl)propan-2-ol
1424		2-(4-chloro-5-(2,6-dichlorophenyl)-1-(3-methyl-3'-(methanesulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1425		2-(4-chloro-5-(2-chloro-6-fluorophenyl)-1-(3-fluoro-3'-(methanesulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1426		2-(4-chloro-5-(2,3-difluorophenyl)-1-(3-fluoro-3'-(methanesulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol

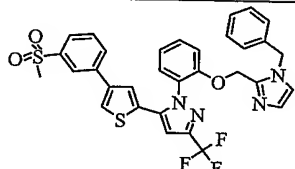
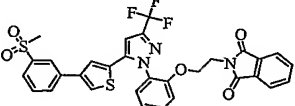
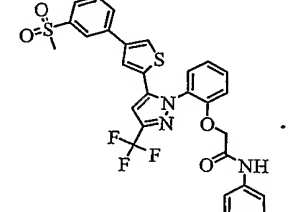
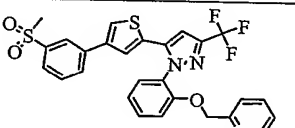
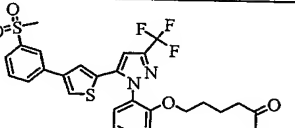
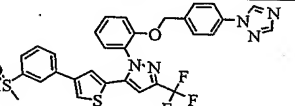
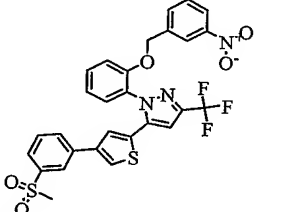
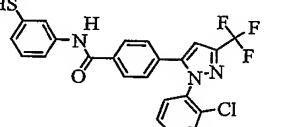
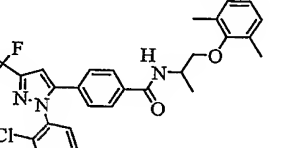
1427		2-(4-chloro-1-(3-chloro-3'-(methylsulfonyl)biphenyl-4-yl)-5-(2,3-difluorophenyl)-1H-pyrazol-3-yl)propan-2-ol
1428		2-(4-chloro-5-(2,3-difluorophenyl)-1-(3-methyl-3'-(methylsulfonyl)biphenyl-4-yl)-1H-pyrazol-3-yl)propan-2-ol
1429		5-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}oxy)-2-methylpyridine
1430		N-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-methylpropan-2-amine
1431		N-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N,N'-trimethylpropane-1,3-diamine
1432		1-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-(1-methylpropyl)piperazine
1433		(2R,6S)-1-({[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-2,6-dimethylpiperidine

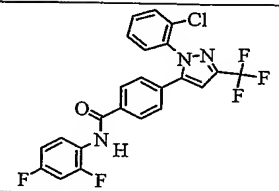
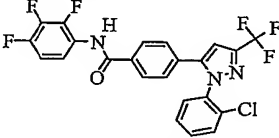
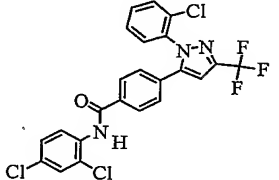
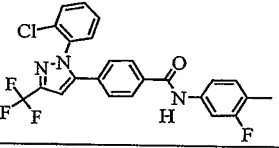
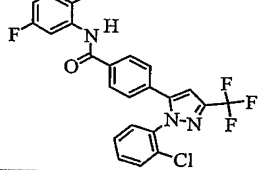
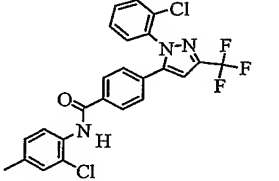
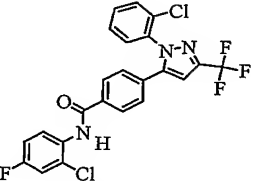
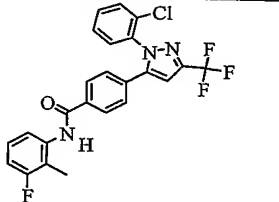
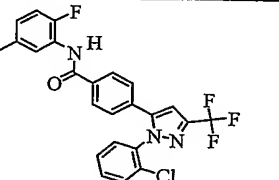
1434		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl]-N-(cyclopropylmethyl)propan-1-amine
1435		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}methyl}decahydroquinoline
1436		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl]-N-ethylethanamine
1437		3-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl]oxy)-2-methylpyridine
1438		1,1-dimethylethyl 4-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}methyl}-1,4-diazepane-1-carboxylate
1439		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl]-N-methyl-2,2-bis(methoxy)ethanamine
1440		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}methyl}piperidin-4-ol
1441		[(2S)-1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl}methyl]pyrrolidin-2-yl]methanol

1442		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-4-methyl-1,4-diazepane
1443		1-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-2-methylpiperazine
1444		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-N-ethylcyclohexanamine
1445		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-N,N'-diethyl-N-methylethane-1,2-diamine
1446		3-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methoxy)pyridine
1447		1-butyl-4-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methylpiperazine
1448		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-N,1-dimethylpiperidin-4-amine
1449		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}]-1H-pyrazol-3-yl)methyl-N-methylpropan-1-amine

1450		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-ethylpropan-2-amine
1451		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-[2-(methyloxy)ethyl]piperazine
1452		N-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-N-(1-methylethyl)propan-2-amine
1453		1-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-4-methylpiperidine
1455		2-{[1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl}-1,2,3,4-tetrahydroisoquinoline

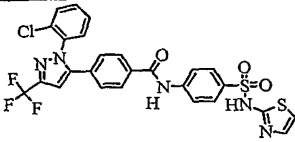
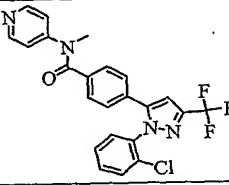
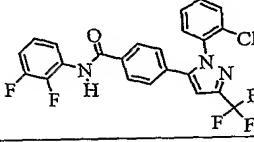
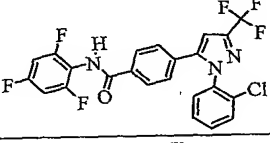
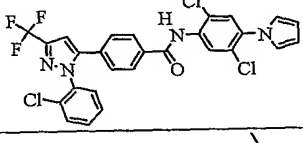
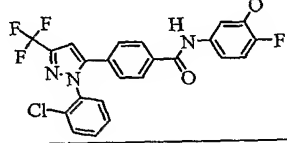
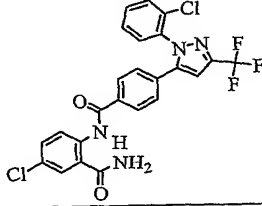
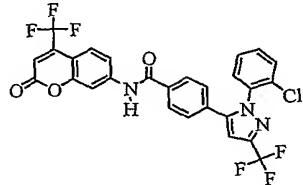
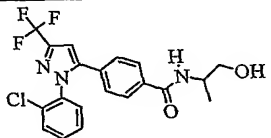
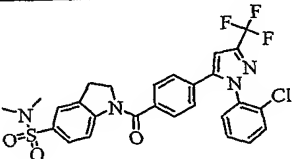
1456		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-N-(phenylmethyl)propan-2-amine
1457		N-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-N-methylcyclohexanamine
1458		8-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methyl)-1,4-dioxaspiro[4.5]decane
1459		3-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methoxy)-2,6-dimethylpyridine
1460		4-([1-(2-chlorophenyl)-5-{5-[3-(methylsulfonyl)phenyl]-2-thienyl}-1H-pyrazol-3-yl]methoxy)pyridine
1461		N,N-diethyl-2-((2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)acetamide
1462		4-((2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)methylpyridine
1463		N-(1-methylethyl)-2-((2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)acetamide
1464		5-((2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl)oxy)pentanenitrile

1465		5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-[2-({[1-(phenylmethyl)-1H-imidazol-2-yl]methyl}oxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1466		2-[2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)ethyl]-1H-isoindole-1,3(2H)-dione
1467		2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)-N-phenylacetamide
1468		2-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]pyridine
1469		6-({2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)hexan-2-one
1470		1-{4-[(2-[5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}oxy)methyl]phenyl}-1H-1,2,4-triazole
1471		5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-1-(2-({[3-(3-nitrophenyl)methyl]oxy}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1472		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-mercaptophenyl)benzamide
1473		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(2,6-dimethylphenyl)oxy]-1-methylethyl}benzamide

1474		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,4-difluorophenyl)benzamide
1475		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3,4-trifluorophenyl)benzamide
1477		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,4-dichlorophenyl)benzamide
1478		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-fluoro-4-methylphenyl)benzamide
1479		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-fluoro-2-methylphenyl)benzamide
1480		N-(2-chloro-4-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1481		N-(2-chloro-4-fluorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1482		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-fluoro-2-methylphenyl)benzamide
1483		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-fluoro-5-methylphenyl)benzamide

1485		N-[5-chloro-2-(phenyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1486		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-phenylbenzamide
1487		N-(3-chloro-4-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1488		N-(3-chloro-2-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1489		N-[(4-chlorophenyl)methyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1490		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-phenyl-1,2,4-thiadiazol-5-yl)benzamide
1491		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methyl-1,3-thiazol-2-yl)benzamide
1492		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-ethyl-N-{4-[(trifluoromethyl)oxy]phenyl}benzamide
1493		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1-ethylpyrrolidin-2-yl)methyl]benzamide
1494		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-ethyl-1,3,4-thiadiazol-2-yl)benzamide

1495		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,6-difluorophenyl)benzamide
1496		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3,4,5-tris(methoxy)phenyl]benzamide
1497		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,4,5-trifluorophenyl)benzamide
1498		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-hydroxy-2-methylphenyl)benzamide
1499		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(1-hydroxyethyl)phenyl]benzamide
1500		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-methyl-2-(methoxy)ethyl]benzamide
1501		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxyethyl)-N-phenylbenzamide
1502		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,5-difluorophenyl)benzamide
1503		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2,6-dichlorophenyl)methyl]benzamide
1504		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methylthio)phenyl]benzamide

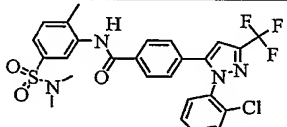
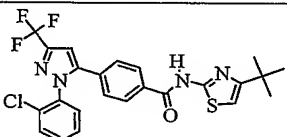
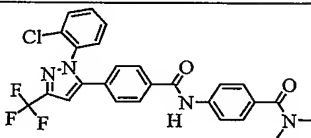
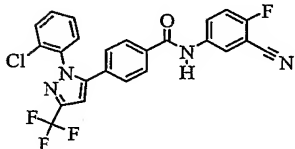
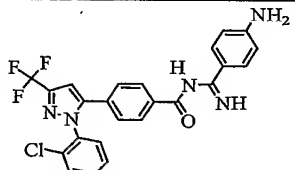
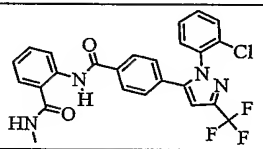
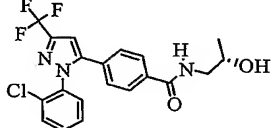
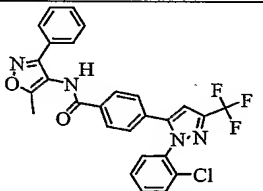
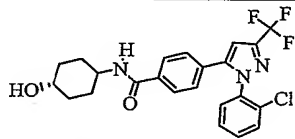
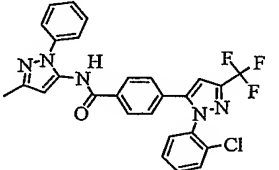
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1507		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-pyridin-4-ylbenzamide
1508		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3-difluorophenyl)benzamide
1509		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,4,6-trifluorophenyl)benzamide
1510		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2,5-dichloro-4-(1H-pyrrol-1-yl)phenyl]benzamide
1511		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-fluoro-3-(methoxy)phenyl]benzamide
1512		5-chloro-2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzamide
1513		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-oxo-4-(trifluoromethyl)-2H-chromen-7-yl]benzamide
1515		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxy-1-methylethyl)benzamide
1516		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-N,N-dimethyl-2,3-dihydro-1H-indole-5-sulfonamide

1517		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2,5-difluorophenyl)methyl]benzamide
1518		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-7-(trifluoromethyl)-1,2,3,4-tetrahydroquinoline
1519		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-ethyl-N-1,3,4-thiadiazol-2-ylbenzamide
1520		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(2,2,2-trifluoroethyl)oxy]-5-(trifluoromethyl)phenyl}benzamide
1521		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(hydroxymethyl)-2-methylphenyl]benzamide
1522		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(methoxy)propyl]benzamide
1523		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-phenyl-1,3-thiazol-2-yl)benzamide
1524		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(morpholin-4-ylsulfonyl)phenyl]benzamide
1525		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-methyl-3-[(methylsulfonyl)amino]phenyl}benzamide

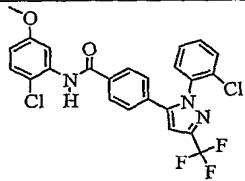
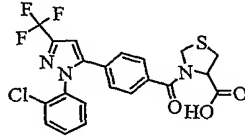
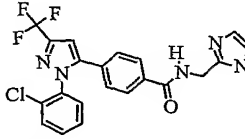
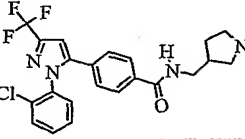
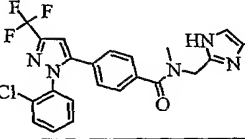
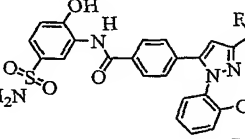
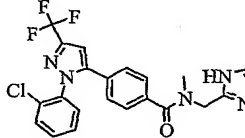
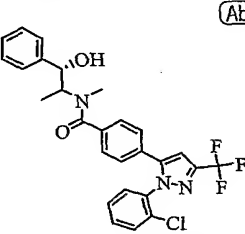
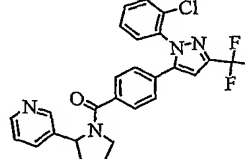
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1527		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(trifluoromethyl)pyridin-3-yl]benzamide
1529		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-pyridin-2-ylbenzamide
1530		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2-fluorophenyl)methyl]benzamide
1531		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-fluoro-2-(trifluoromethyl)phenyl]benzamide
1532		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-hydroxy-4-methylphenyl)benzamide
1533		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-hoxypyridin-2-yl)benzamide
1534		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-ethyl-N-{2-[(trifluoromethyl)oxy]phenyl}benzamide
1535		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2R)-2-hydroxypropyl]benzamide
1536		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(1-methylpyrrolidin-2-yl)ethyl]benzamide

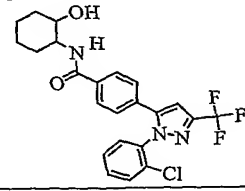
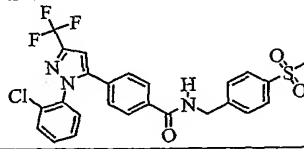
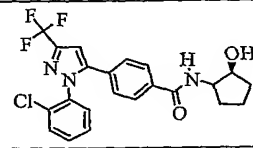
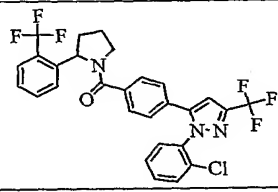
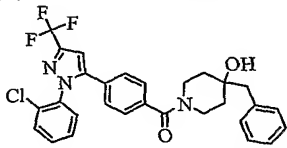
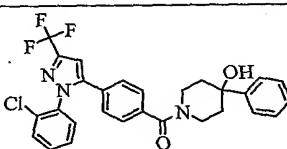
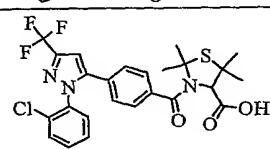
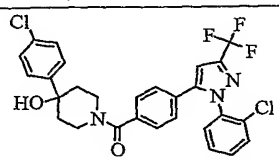
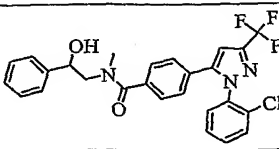
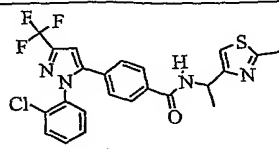
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1538		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(hydroxymethyl)-4-methylphenyl]benzamide
1539		4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl(ethyl)amino]benzoic acid
1540		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(3-methyl-2-oxoimidazolidin-1-yl)phenyl]benzamide
1541		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(methoxy)pyrimidin-4-yl]benzamide
1542		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-[2-(methoxy)phenyl]ethyl]benzamide
1543		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,2,2-trifluoroethyl)benzamide
1544		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]-N-(1,1-dimethylethyl)benzamide
1545		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(1,3-oxazol-5-yl)phenyl]benzamide
1546		N-(1,3-benzodioxol-5-ylmethyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1547		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{5-[(dimethylamino)sulfonyl]-4-methyl-1,3-thiazol-2-yl}benzamide

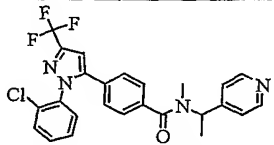
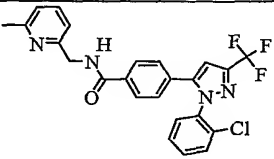
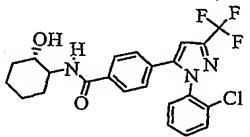
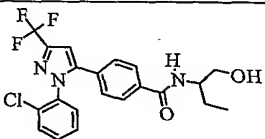
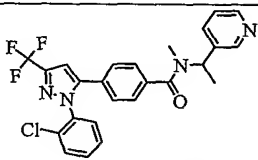
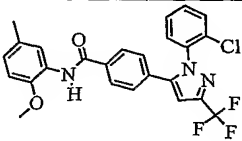
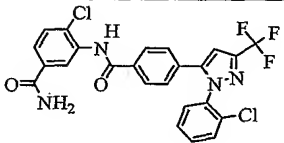
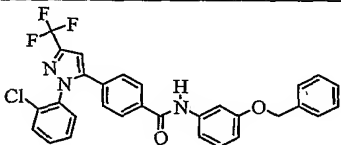
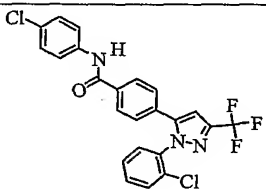
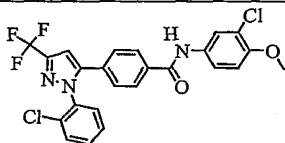
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1549		N-[2,2-bis(methoxy)ethyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methylbenzamide
1550		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(dimethylamino)phenyl]benzamide
1551		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-methyl-1-(4-methylphenyl)-1H-pyrazol-5-yl]benzamide
1552		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-4-methylbenzoic acid
1553		N-(4-chloro-2-cyanophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1554		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-4-hydroxybenzoic acid
1555		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxy-5-methylphenyl)benzamide
1556		N-[4-(aminosulfonyl)-2,6-dichlorophenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1557		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylpropyl)-2-hydroxyphenyl]benzamide
1558		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(ethylsulfonyl)-2-hydroxyphenyl]benzamide

1559		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{5-[(dimethylamino)sulfonyl]-2-methylphenyl}benzamide
1560		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(1,1-dimethylethyl)-1,3-thiazol-2-yl]benzamide
1561		4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-N,N-dimethylbenzamide
1562		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyano-4-fluorophenyl)benzamide
1563		N-[(4-aminophenyl)(imino)methyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1564		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]-N-methylbenzamide
1565		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2S)-2-hydroxypropyl]benzamide
1566		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-methyl-3-phenylisoxazol-4-yl)benzamide
1567		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-hydroxycyclohexyl)benzamide
1568		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-methyl-1-phenyl-1H-pyrazol-5-yl)benzamide

1569		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(3,5-dimethyl-1H-pyrazol-4-yl)methyl]-N-methylbenzamide
1570		methyl 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]thiophene-3-carboxylate
1571		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1-hydroxycyclohexyl)methyl]benzamide
1572		4-(4-bromophenyl)-1-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]piperidin-4-ol
1573		[1-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]piperidin-3-yl]methanol
1574		(3R)-1-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]piperidin-3-ol
1575		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-oxotetrahydrofuran-3-yl)benzamide
1576		N-[2-(aminocarbonyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1577		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-methyl-3-(2-thienyl)-1H-pyrazol-5-yl]benzamide
1578		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-[(2-methyl-1,3-thiazol-4-yl)methyl]benzamide
1579		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]-1,3-thiazolidine-2-carboxylic acid

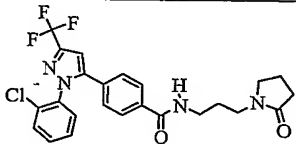
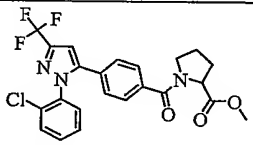
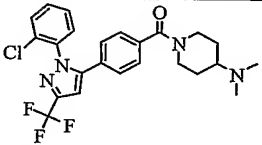
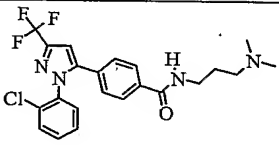
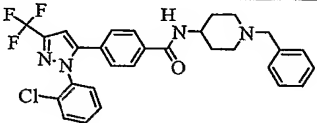
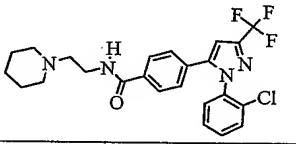
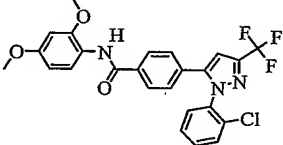
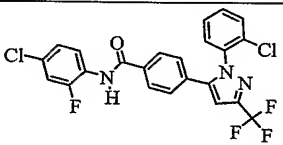
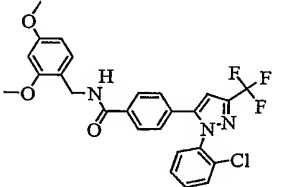
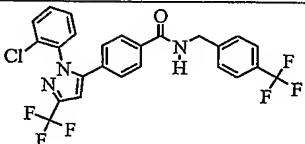
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1581		3-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,3-thiazolidine-4-carboxylic acid
1582		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1-methyl-1H-imidazol-2-yl)methyl]benzamide
1583		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1-methylpyrrolidin-3-yl)methyl]benzamide
1584		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-[(4-methyl-1H-imidazol-2-yl)methyl]benzamide
1585		N-[5-(aminosulfonyl)-2-hydroxyphenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1586		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1H-imidazol-2-ylmethyl)-N-methylbenzamide
1587		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2S)-2-hydroxy-1-methyl-2-phenylethyl]-N-methylbenzamide
1588		3-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-2-yl]pyridine

1589		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxycyclohexyl)benzamide
1590		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{[4-(methylsulfonyl)phenyl]methyl}benzamide
1591		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2S)-2-hydroxycyclopentyl]benzamide
1592		1-(2-chlorophenyl)-3-(trifluoromethyl)-5-[4-({2-[2-(trifluoromethyl)phenyl]pyrrolidin-1-yl}carbonyl)phenyl]-1H-pyrazole
1593		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(phenylmethyl)piperidin-4-ol
1594		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-phenylpiperidin-4-ol
1595		3-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-2,2,5,5-tetramethyl-1,3-thiazolidine-4-carboxylic acid
1596		4-(4-chlorophenyl)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-ol
1597		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxy-2-phenylethyl)-N-methylbenzamide
1598		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-(2-methyl-1,3-thiazol-4-yl)ethyl]benzamide

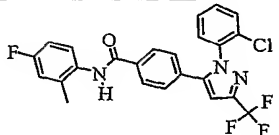
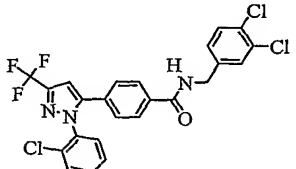
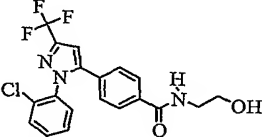
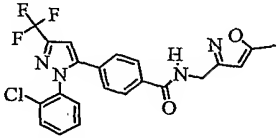
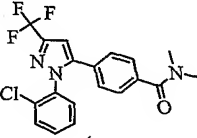
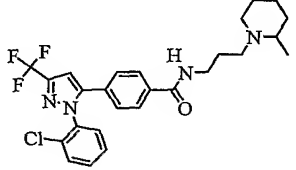
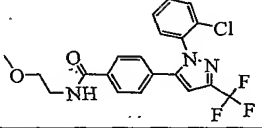
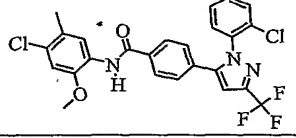
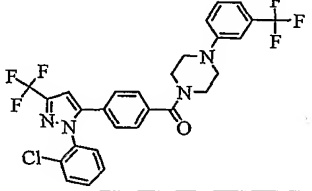
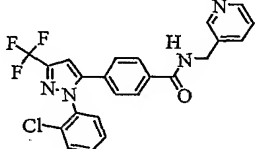
1599		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-pyridin-4-ylethyl)benzamide
1600		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(6-methylpyridin-2-yl)methyl]benzamide
1601		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2S)-2-hydroxycyclohexyl]benzamide
1602		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-(hydroxymethyl)propyl]benzamide
1603		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methyl-N-(1-pyridin-3-ylethyl)benzamide
1604		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-methyl-2-(methyloxy)phenyl]benzamide
1605		4-chloro-3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzamide
1606		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{3-[(phenylmethyl)oxy]phenyl}benzamide
1607		N-(4-chlorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1608		N-[3-chloro-4-(methyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide

1609		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3,5-difluorophenyl)benzamide
1610		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-methylphenyl)benzamide
1611		N-(5-chloro-2-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1612		N-(5-bromopyridin-2-yl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1613		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-propylbenzamide
1614		N-(2-chloro-5-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1615		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(phenyloxy)phenyl]benzamide
1616		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(methoxy)phenyl]benzamide
1617		N-(2-chloro-4,6-dimethylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1618		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1-methylethyl)-1,3,4-thiadiazol-2-yl]benzamide
1619		N-(4-chloro-3-(trifluoromethyl)phenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide

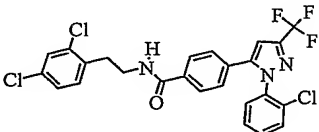
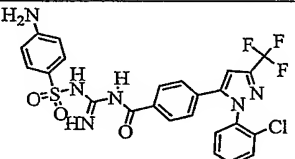
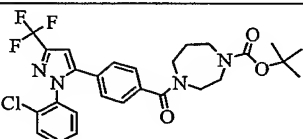
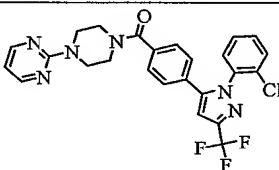
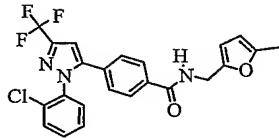
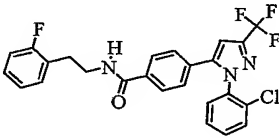
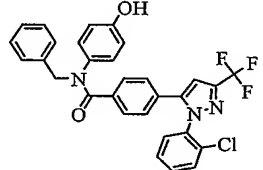
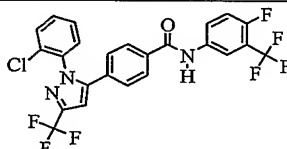
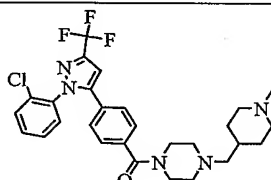
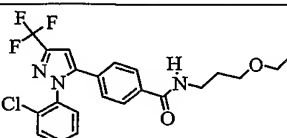
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1621		N-(2-(benzylthio)ethyl)-4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzamide
1622		N-(3-benzoylphenyl)-4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzamide
1623		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(5-mercapto-1,3,4-thiadiazol-2-yl)benzamide
1624		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-(2-(trifluoromethyl)benzyl)benzamide
1625		tert-butyl 4-(4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzamido)piperidine-1-carboxylate
1626		4-(1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)-N-((1,3,5-trimethyl-1H-pyrazol-4-yl)methyl)benzamide
1627		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-pyridin-2-ylethyl)benzamide
1628		ethyl 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]benzoate
1629		N-(4-chloro-2-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1630		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(pyridin-2-ylmethyl)benzamide

1631		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(2-oxopyrrolidin-1-yl)propyl]benzamide
1632		methyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)prolinate
1633		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-N,N-dimethylpiperidin-4-amine
1634		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(dimethylamino)propyl]benzamide
1635		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-(phenylmethyl)piperidin-4-yl]benzamide
1636		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-piperidin-1-ylethyl)benzamide
1638		N-[2,4-bis(methoxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1639		N-(4-chloro-2-fluorophenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1640		N-{[2,4-bis(methoxy)phenyl]methyl}-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1642		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{[4-(trifluoromethyl)phenyl]methyl}benzamide

1643		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{[3-(trifluoromethyl)phenyl]methyl}benzamide
1644		1-acetyl-4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazine
1645		N-(4-acetylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1646		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(diethylamino)phenyl]benzamide
1647		N-(2-chloro-6-methylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1648		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3,4-difluorophenyl)benzamide
1649		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{[2-(ethyloxy)phenyl]methyl}benzamide
1650		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{[3-(1H-pyrrol-1-yl)phenyl]methyl}benzamide
1651		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-ethylbenzamide
1652		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1,5-dimethyl-1H-pyrazol-3-yl)methyl]benzamide
1653		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(ethyloxy)phenyl]benzamide

1654		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-fluoro-2-methylphenyl)benzamide
1655		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(3,4-dichlorophenyl)methyl]benzamide
1656		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxyethyl)benzamide
1657		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(5-methylisoxazol-3-yl)methyl]benzamide
1658		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N,N-dimethylbenzamide
1659		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(2-methylpiperidin-1-yl)propyl]benzamide
1660		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methyloxy)ethyl]benzamide
1662		N-[4-chloro-5-methyl-2-(methyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1663		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[3-(trifluoromethyl)phenyl]piperazine
1664		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(pyridin-3-ylmethyl)benzamide

1665		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3-dichlorophenyl)benzamide
1666		N-{2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]ethyl}-N-prop-2-en-1-ylprop-2-en-1-amine
1667		N-[(2-chlorophenyl)methyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1668		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-pyrrolidin-1-ylpiperidine
1669		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N,N-bis(1-methylethyl)benzamide
1670		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(diethylamino)ethyl]-N-ethylbenzamide
1671		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine
1672		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(1-methylbutyl)piperazine
1673		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-cyanophenyl)benzamide
1674		N-(3-acetylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1675		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(1-ethylpropyl)piperazine

1676		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(2,4-dichlorophenyl)ethyl]benzamide
1677		N-[[[(4-aminophenyl)sulfonyl]amino}(imino)methyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1678		1,1-dimethylethyl 4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,4-diazepane-1-carboxylate
1679		2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]pyrimidine
1680		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(5-methylfuran-2-yl)methyl]benzamide
1681		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(2-fluorophenyl)ethyl]benzamide
1682		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-hydroxyphenyl)-N-(phenylmethyl)benzamide
1683		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-fluoro-3-(trifluoromethyl)phenyl]benzamide
1684		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[(1-methylpiperidin-4-yl)methyl]piperazine
1685		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(ethoxy)propyl]benzamide

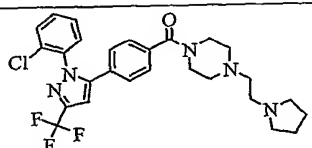
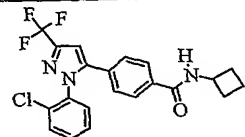
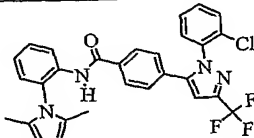
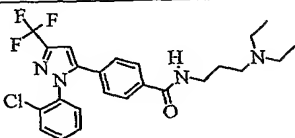
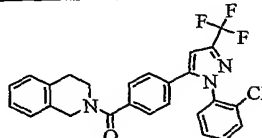
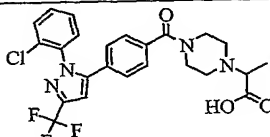
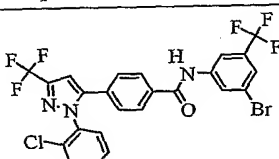
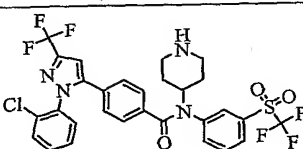
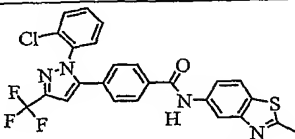
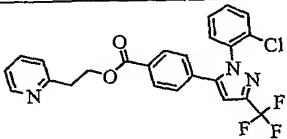
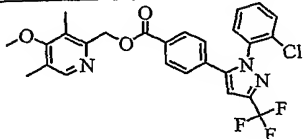
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1687		N-(2-acetylphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1688		4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzene-1,2-dicarboxylic acid
1689		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(1,3-dioxolan-2-ylmethyl)piperazine
1690		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-pyrimidin-2-ylbenzamide
1691		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(1H-imidazol-4-yl)ethyl]benzamide
1692		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(5-methylpyrazin-2-yl)methyl]benzamide
1693		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(phenyloxy)phenyl]benzamide
1694		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{4-[(trifluoromethyl)sulfonyl]phenyl}benzamide
1695		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1H-indol-5-ylbenzamide

1696		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(methoxy)phenyl]benzamide
1698		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(phenyloxy)phenyl]benzamide
1699		N-[3-(acetamino)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1700		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2,5-dimethylfuran-3-yl)methyl]benzamide
1701		N-[2-(aminosulfonyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1702		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-isoquinolin-1-ylbenzamide
1703		[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]acetic acid
1705		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,3-dihydroxypropyl)benzamide
1706		N-[3-(aminocarbonyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1707		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(ethylthio)-1,3,4-thiadiazol-2-yl]benzamide
1708		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[(2-hydroxyethyl)oxy]ethyl}benzamide

1709		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3,4-dichlorophenyl)benzamide
1710		N-(3-chloro-4-hydroxyphenyl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1711		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(8-hydroxyquinolin-5-yl)benzamide
1712		N-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidin-4-yl]-N-cyclopropylbenzenesulfonamide
1713		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-4-fluorobenzoic acid
1714		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{2-[4-(methylsulfonyl)phenyl]ethyl}benzamide
1715		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(2,4-dichlorophenyl)methyl]benzamide
1716		N-[(4-chloro-2-methylphenyl)methyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1717		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-2-carboxylic acid
1718		methyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperidine-4-carboxylate

1719		N-(4-[[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1720		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-3-methylbenzoic acid
1721		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-chloropyridin-2-yl)benzamide
1722		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-fluorophenyl)benzamide
1723		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[1-(methylsulfonyl)-2,3-dihydro-1H-indol-5-yl]benzamide
1724		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-2-methylpropanoic acid
1725		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[phenyl(pyridin-2-yl)methyl]benzamide
1726		N-(6-chloro-1,3-benzothiazol-2-yl)-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1727		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(methylsulfonyl)-1,3-benzothiazol-2-yl]benzamide
1728		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxybutyl)benzamide
1729		N-[4-(acetamido)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide

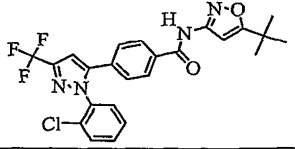
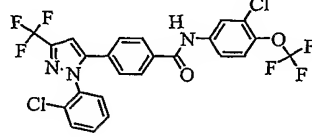
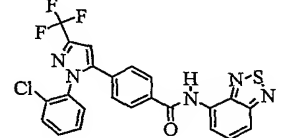
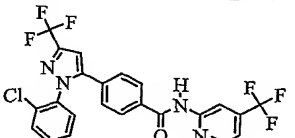
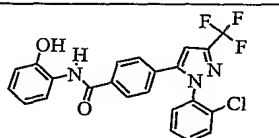
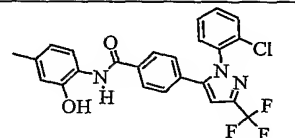
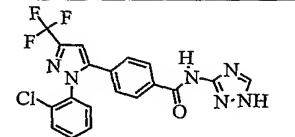
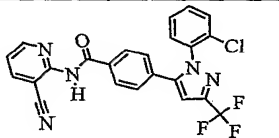
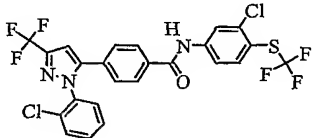
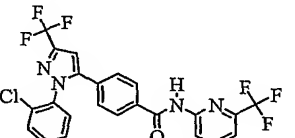
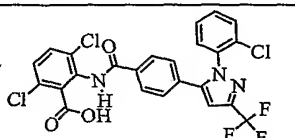
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1731		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4-morpholin-4-ylphenyl)benzamide
1732		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[(1-methyl-1H-pyrrol-2-yl)methyl]benzamide
1733		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(methylthio)-1,3,4-thiadiazol-2-yl]benzamide
1734		methyl 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoate
1735		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-isoquinolin-5-ylbenzamide
1736		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxypropyl)benzamide
1737		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1-methyl-1H-benzimidazol-2-yl)benzamide
1738		1,1-dimethylethyl 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]pyrrolidine-1-carboxylate
1739		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(6-methyl-1,3-benzothiazol-2-yl)benzamide
1740		N-[5-(acetilamino)-2-(ethyloxy)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide

1741		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-(2-pyrrolidin-1-ylethyl)piperazine
1742		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-cyclobutylbenzamide
1743		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(2,5-dimethyl-1H-pyrrol-1-yl)phenyl]benzamide
1744		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(diethylamino)propyl]benzamide
1745		2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-1,2,3,4-tetrahydroisoquinoline
1746		2-[4-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)piperazin-1-yl]propanoic acid
1747		N-[3-bromo-5-(trifluoromethyl)phenyl]-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1748		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-piperidin-4-yl-N-{3-[(trifluoromethyl)sulfonyl]phenyl}benzamide
1749		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-methyl-1,3-benzothiazol-5-yl)benzamide
1750		2-pyridin-2-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1751		[3,5-dimethyl-4-(methoxy)pyridin-2-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate

1752		2-(propylthio)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1753		furan-3-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1754		(2,4-difluorophenyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1755		furan-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1756		2-(2-methylphenyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1757		2-[3-(trifluoromethyl)phenyl]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1758		3-(methylthio)propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1759		2-oxo-2-phenylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1760		pyridin-3-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1761		2-(phenylsulfonyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate

1762		(2,5-dichlorophenyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1763		[4-(methylthio)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1764		cyanomethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1765		3-[3-(trifluoromethyl)-1H-pyrazol-4-yl]propyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1766		2-isoxazol-4-ylethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1767		2-(2-thienyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1768		(5-methyl-1-phenyl-1H-pyrazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1769		2,2'-bithien-5-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1770		3-pyridin-2-ylpropyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1771		2-(methylthio)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate

1772		pyridin-4-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1773		1,3-benzothiazol-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1774		3-thienylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1775		2-[(4-methylphenyl)sulfonyl]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1776		2-(4-methyl-1,3-thiazol-5-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1777		(2-phenyl-1,3-thiazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1778		2-cyanoethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1779		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoic hydroxyacetic anhydride
1780		[1-(phenylmethyl)-1H-imidazol-2-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1781		(5-methyl-3-phenylisoxazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1782		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-5-fluorobenzoic acid

1783		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(1,1-dimethylethyl)isoxazol-3-yl]benzamide
1784		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-chloro-4-[(trifluoromethyl)oxy]phenyl]benzamide
1785		N-2,1,3-benzothiadiazol-4-yl-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1786		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(trifluoromethyl)pyridin-2-yl]benzamide
1787		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxyphenyl)benzamide
1788		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-hydroxy-4-methylphenyl)benzamide
1789		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1H-1,2,4-triazol-3-ylbenzamide
1790		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(3-cyanopyridin-2-yl)benzamide
1791		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-chloro-4-[(trifluoromethyl)thio]phenyl]benzamide
1792		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[6-(trifluoromethyl)pyridin-2-yl]benzamide
1793		3,6-dichloro-2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino]benzoic acid

1794		5-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-2-hydroxybenzoic acid
1795		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]aminothiophene-2-carboxamide
1796		ethyl 2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]amino-4-methylthiophene-3-carboxylate
1797		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(1,3,5-trimethyl-1H-pyrazol-4-yl)benzamide
1798		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(4,5-dimethyl-1,3-thiazol-2-yl)benzamide
1799		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-(trifluoromethyl)pyridin-4-yl]benzamide
1800		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2-morpholin-4-ylphenyl)benzamide
1801		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-hydroxy-1H-pyrazol-3-yl)benzamide
1802		methyl 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonyl]aminothiophene-2-carboxylate
1803		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(hydroxymethyl)phenyl]benzamide

1804		2-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl]carbonylamino]-5-hydroxybenzoic acid
1805		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-(1-methylethyl)-2-(trifluoromethyl)phenyl]benzamide
1806		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]benzamide
1807		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(phenylcarbonyl)phenyl]benzamide
1808		3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl]carbonylamino]-2-hydroxybenzoic acid
1809		4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl]carbonylamino]-3-methylbenzoic acid
1810		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(5-furan-2-yl-1H-pyrazol-3-yl)benzamide
1811		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[3-hydroxy-4-(methoxy)phenyl]benzamide
1812		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-1H-tetrazol-5-ylbenzamide
1813		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[5-(methylthio)-1H-1,2,4-triazol-3-yl]benzamide
1814		methyl 3-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl]carbonylamino]-4-methylthiophene-2-carboxylate

1815		methyl 5-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]furan-2-carboxylate
1816		2-chloro-5-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]benzoic acid
1817		N-{4-[(acetylamino)sulfonyl]phenyl}-4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzamide
1818		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-methylbenzamide
1819		ethyl 4-[(4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl)carbonylamino]benzoate
1820		[4-(1H-pyrazol-1-yl)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1821		[2,3-bis(methoxy)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1822		(5-methyl-2-phenyl-2H-1,2,3-triazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1823		[4-(1H-1,2,4-triazol-1-yl)phenyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1824		[6-(phenyloxy)pyridin-3-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1825		2-{[4-(trifluoromethyl)pyridin-2-yl]oxy}ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate

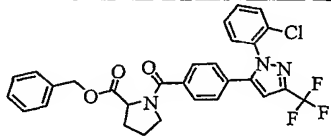
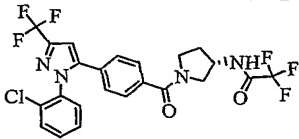
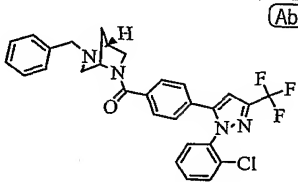
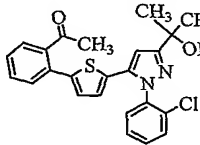
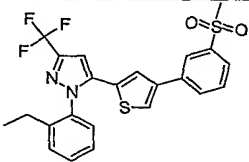
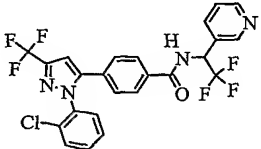
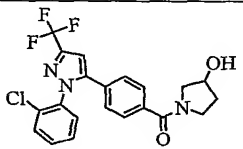
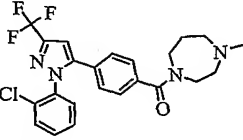
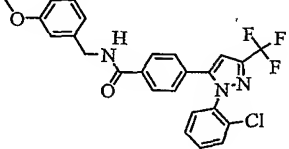
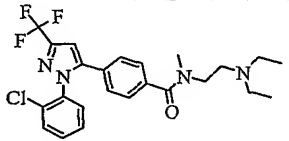
1826		2-(3-methyl-5-oxo-4,5-dihydro-1H-pyrazol-4-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1827		(2-butyl-5-chloro-1H-imidazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1828		(5-pyridin-2-yl-2-thienyl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1829		(5-methyl-1H-imidazol-4-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1830		3-pyridin-3-ylpropyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1831		2-[(2-methylpropyl)thio]ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1832		[5-(2-methyl-1,3-thiazol-4-yl)-2-thienyl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1833		2-(2-chlorophenyl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1834		pyridin-2-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1835		1H-imidazol-4-ylmethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate

1836		(2-methylpyridin-3-yl)methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1837		[1-(phenylsulfonyl)-1H-indol-3-yl]methyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1838		2-(1H-imidazol-1-yl)ethyl 4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]benzoate
1839		1-(2-chlorophenyl)-5-((4-((2-propylpyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1840		4-[1-((4-((1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)phenyl)carbonyl)pyrrolidin-2-yl)-N,N-dimethylaniline]
1841		1-(2-chlorophenyl)-5-((4-((2-phenylpyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1842		1-(2-chlorophenyl)-5-((4-((2-(4-methoxyphenyl)pyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1843		1-(2-chlorophenyl)-5-((4-((2-(1,1-dimethylethyl)pyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1844		1-(2-chlorophenyl)-5-((4-((2-(4-methoxyphenyl)pyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1845		1-(2-chlorophenyl)-5-((4-((2-(2-methylpropyl)pyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate
1846		1-(2-chlorophenyl)-5-((4-((2-(1-methylethyl)pyrrolidin-1-yl)carbonyl)phenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl)methyl)benzoate

1847		1-(2-chlorophenyl)-5-[4-({2-[4-(1,1-dimethylethyl)phenyl]pyrrolidin-1-yl} carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1848		1-(2-chlorophenyl)-5-{4-[[4-(methoxy)phenyl]methyl]pyrrolidin-1-yl} carbonyl}phenyl]-3-(trifluoromethyl)-1H-pyrazole
1849		1-(2-chlorophenyl)-5-(4-{[2-(3-chlorophenyl)pyrrolidin-1-yl] carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1850		5-(4-{[2-(4-bromophenyl)pyrrolidin-1-yl] carbonyl}phenyl)-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole
1851		5-(4-{[2-(2-bromophenyl)pyrrolidin-1-yl] carbonyl}phenyl)-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole
1852		1-(2-chlorophenyl)-5-[4-({2-[(2-methylphenyl)methyl]pyrrolidin-1-yl} carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1853		1-(2-chlorophenyl)-5-[4-({2-[4-(ethoxy)phenyl]pyrrolidin-1-yl} carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1854		1-{[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl} carbonyl)pyrrolidin-2-yl]methyl}piperidine
1855		1-(2-chlorophenyl)-5-(4-{[2-(3-methylphenyl)pyrrolidin-1-yl] carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1856		1-(2-chlorophenyl)-5-[4-({2-[(3-chlorophenyl)methyl]pyrrolidin-1-yl} carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1857		1-(2-chlorophenyl)-5-(4-{[2-(4-methylphenyl)pyrrolidin-1-yl] carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole

1858		5-{4-[(2-biphenyl-4-yl)pyrrolidin-1-yl]carbonyl}phenyl-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole
1859		1-(2-chlorophenyl)-5-(4-{[2-(3-fluorophenyl)pyrrolidin-1-yl]carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1860		2-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-2-yl]-1H-indole
1861		1-(2-chlorophenyl)-5-[4-({2-[(3-methylphenyl)methyl]pyrrolidin-1-yl}carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1862		1-(2-chlorophenyl)-5-[4-({2-[(4-methylphenyl)methyl]pyrrolidin-1-yl}carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1863		1-(2-chlorophenyl)-5-(4-{[2-(3,4-dichlorophenyl)pyrrolidin-1-yl]carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1864		5-[4-({2-[2,5-bis(methoxy)phenyl]pyrrolidin-1-yl}carbonyl)phenyl]-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole
1865		1-(2-chlorophenyl)-5-[4-({2-[(2-chlorophenyl)methyl]pyrrolidin-1-yl}carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1866		1-(2-chlorophenyl)-5-[4-({2-[(2-fluorophenyl)methyl]pyrrolidin-1-yl}carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1867		1-(2-chlorophenyl)-5-{4-[(2-cyclohexyl)pyrrolidin-1-yl]carbonyl}phenyl-3-(trifluoromethyl)-1H-pyrazole
1868		methyl (3S,4R)-4-(2-chlorophenyl)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidine-3-carboxylate

1869		1-(2-chlorophenyl)-5-[4-({2-[(methoxy)methyl]pyrrolidin-1-yl}carbonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole
1870		1-(2-chlorophenyl)-5-(4-{[2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1871		(3R)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-3-ol
1872		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)prolinamide
1873		(3R)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-N,N-dimethylpyrrolidin-3-amine
1874		1-(2-chlorophenyl)-5-{4-[(2-methylpyrrolidin-1-yl)carbonyl]phenyl}-3-(trifluoromethyl)-1H-pyrazole
1875		methyl (3S,4R)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(methoxy)phenyl]pyrrolidine-3-carboxylate
1876		methyl (3S,4R)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-[4-(trifluoromethyl)phenyl]pyrrolidine-3-carboxylate
1877		1-(2-chlorophenyl)-5-(4-{[2-(4-fluorophenyl)pyrrolidin-1-yl]carbonyl}phenyl)-3-(trifluoromethyl)-1H-pyrazole
1878		2-[1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-2-yl]-6-methyl-1H-benzimidazole

1879		phenylmethyl 1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)prolinate
1880		N-[(3S)-1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-3-yl]-2,2,2-trifluoroacetamide
1881		(4R)-2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-5-(phenylmethyl)-2,5-diazabicyclo[2.2.1]heptane
1882		1-(2-{5-[1-(2-chlorophenyl)-3-(1-hydroxy-1-methylethyl)-1H-pyrazol-5-yl]-2-thienyl}phenyl)ethanone;
1883		1-(2-ethylphenyl)-5-{4-[3-(methylsulfonyl)phenyl]-2-thienyl}-3-(trifluoromethyl)-1H-pyrazole
1884		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-(2,2,2-trifluoro-1-pyridin-3-ylethyl)benzamide
1885		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)pyrrolidin-3-ol
1886		1-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}carbonyl)-4-methyl-1,4-diazepane
1887		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-{{3-(methoxy)phenyl}methyl}benzamide
1888		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-N-[2-(diethylamino)ethyl]-N-methylbenzamide

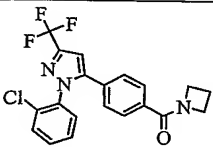
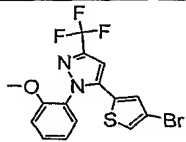
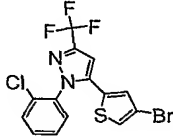
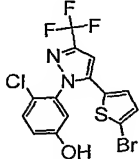
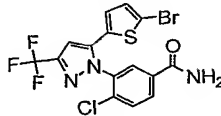
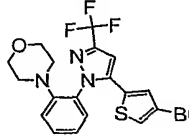
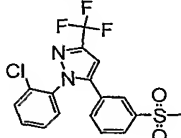
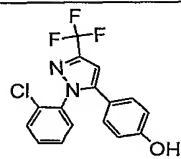
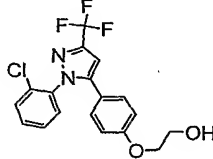
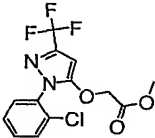
1889		5-[4-(azetidin-1-ylcarbonyl)phenyl]-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole
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Table 2

1374		5-(4-bromo-2-thienyl)-1-[2-(methoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole;
1375		5-(4-bromo-2-thienyl)-1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazole;
1376		3-[5-(5-bromo-2-thienyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-4-chlorophenol;
1377		3-[5-(5-bromo-2-thienyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-4-chlorobenzamide;
1378		4-{2-[5-(4-bromo-2-thienyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]phenyl}morpholine; or
1379		1-(2-chlorophenyl)-5-[3-(methylsulfonyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole.
1380		4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenol
1381		2-({4-[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]phenyl}oxy)ethanol
1382		methyl {[1-(2-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetate

Example 107*FRET Coactivator assay*

5 The FRET coactivator assay measures the ability of LXR ligands to promote protein-protein interactions between the ligand binding domain (LBD) of LXR and transcriptional coactivator proteins.

The assay involves the use a recombinant Glutathione-*S*-transferase (GST)-nuclear receptor ligand binding domain (LBD) fusion protein and a synthetic biotinylated peptide sequence derived from the receptor interacting domain of a co-activator peptide such as the steroid receptor coactivator 1 (SRC-1). Typically GST-LBD is labeled with a europium chelate (donor) via a europium-tagged anti-GST antibody, and the coactivator peptide is labeled with allophycocyanin via a streptavidin-biotin linkage.

In the presence of an agonist for the nuclear receptor, the peptide is recruited to the GST-LBD bringing europium and allophycocyanin into close proximity to enable energy transfer from the europium chelate to the allophycocyanin. Upon excitation of the complex with light at 340 nm excitation energy absorbed by the europium chelate is transmitted to the allophycocyanin moiety resulting in emission at 665 nm. If the europium chelate is not brought into close proximity to the allophycocyanin moiety there is little or no energy transfer and excitation of the europium chelate results in emission at 615 nm. Thus the intensity of light emitted at 665 nm gives an indication of the strength of the protein-protein interaction.

Required Materials:

Partially purified recombinant protein comprising glutathione-*S*-transferase fused in frame to the LXR-ligand binding domain (comprising amino acids 188-447 of human LXR α , or amino acids 198-461 of human LXR β)

Biotinylated peptide containing a SRC-1 LXXLL receptor interaction motif (B-SRC-1).

Anti-GST antibody conjugated to a Europium chelate (α GST-K) (From Wallac/PE Life Sciences Cat# AD0064).

Streptavidin linked allophycocyanin (SA-APC) (From Wallac/PE Life Sciences CAT# AD0059A).

1x FRET Buffer: (20 mM KH₂PO₄/K₂HPO₄ pH 7.3, 150 mM NaCl, 2.5 mM CHAPS, 2 mM EDTA, 1 mM DTT (add fresh)).

96 well or 384 well black multiwell plates (from LJJL)

Stock Solutions:

0.5 M KH₂PO₄/K₂HPO₄: pH 7.3; 5 M NaCl; 80 mM (5%) CHAPS; 0.5 M EDTA pH 8.0; 1 M DTT (keep at -20°C)

Preparation of Screening Reagents:

Prepare reaction mixture for the appropriate number of wells by combining the following reagents 5 nM/well GST-hLXR α LBD, 5 nM/well GST-hLXR β LBD, 5 nM/well Anti-GST antibody (Eu), 12 nM/well biotin-SRC-1 peptide, 12 nM/well APC-SA adjust the volume to 10 μ L/well with 1x-FRET buffer.

Procedure:

Add 0.5 μ L of a 1 mM stock compound (for approx. 10 μ M final concentration) or solvent to each well in a 96 well or 384 well black plate (LJL). Add 10 μ L reaction mixture (prepared above) to each well of the multiwell plate. Incubate covered or in the dark (the APC is light sensitive) at ambient temperature for 1-4 hours. After this time if reactions are not read they can be stored at 4°C for several more hours without too much loss of signal.

Read the plate using an LJL Analyst, or similar instrument, using the following conditions: Channel 1: Excitation is 330 nm and emission is 615. This is for Eu chelate; Channel 2: Excitation is 330 nm and emission is 665. This is for APC; For channel 1: Flashes per well = 100; Integration time = 1000 μ s; interval between flashes = 1x10 ms; Delay after flash = 200 μ s; For channel 2: Flashes per well = 100; Integration time = 100 μ s; interval between flashes = 1x10 ms; Delay after flashes = 65 μ s.

Example 108*Scintillation proximity assay (SPA)*

The SPA assay measures the radioactive signal generated by the binding of 3 H-24,25-epoxycholesterol to LXR α or LXR β . The basis of the assay is the use of SPA beads containing a scintillant, such that when binding to the receptor brings the labeled ligand into proximity with the bead, the energy from the label stimulates the scintillant to emit light. The light is measured using a standard microplate scintillation reader. The ability of a ligand to bind to a receptor can be measured by assessing the degree to which the compound can compete off a radiolabelled ligand with known affinity for the receptor.

Required Materials:

Label: 3 H-24,25-epoxy-cholesterol (Amersham)

LXR α lysate: Baculovirus expressed LXR α /RXR heterodimer with RXR having a 6-HIS tag produced as a crude lysate

LXR β lysate: Baculovirus expressed LXR β /RXR heterodimer with RXR having a 6-HIS tag produced as a crude lysate

SPA beads: Ysi copper His-tag SPA beads (Amersham)

Plates: Non-binding surface 96-well plate (Corning)

Protein lysate dilution buffer: (20 mM Tris-HCl pH 7.9, 500 mM NaCl, 5 mM Imidazole). 2x SPA

Buffer: (40 mM K_2HPO_4/KH_2PO_4 pH7.3, 100 mM NaCl, 0.05% Tween 20, 20% Glycerol, 4 mM EDTA) 2x SPA Buffer w/o EDTA: (40 mM K_2HPO_4/KH_2PO_4 pH7.3, 100mM NaCl, 0.05% Tween 20, 20% Glycerol)

Stock Solutions

0.5 M $\text{K}_2\text{HPO}_4/\text{KH}_2\text{PO}_4$ pH 7.3; 0.5 M EDTA pH 8.0; 5 M NaCl; 10% Tween-20; Glycerol

Preparation of protein lysates

Baculovirus expression plasmids for human RXR α (accession No NM_002957), LXR α (accession No U22662), LXR β (accession No U07132) were made by cloning the appropriate full-length cDNAs into the pBacPakhis1 vector (Clontech, CA) following standard procedures. Insertion of the cDNAs into the pBacPakhis1 vector polylinker created an in frame fusion to the cDNA to an N-terminal poly-His tag present in pBacPakhis1. Correct cloning was confirmed by restriction mapping, and/or sequencing.

Cell lysates were prepared by infecting healthy, Sf9 insect cells at a density of approximately 1.25×10^6 /ml at 27°C, in a total volume of 500 mL per 1L sized spinner flasks, cultured under standard conditions. To prepare LXR α lysate, insect cells were co-transfected with the LXR α expression cassette at an M.O.I. of 0.5 to 0.8 and with the RXR expression cassette at a M.O.I. of approximately 1.6. To prepare LXR β lysate, insect cells were co-transfected with the LXR β expression cassette at an M.O.I. of approximately 1.6 and with the RXR expression cassette at a M.O.I. of approximately 1.6. In both cases cells were incubated for 48 hours at 27°C with constant shaking prior to harvesting.

After incubation, cells were harvested by centrifugation and pelleted. Cell pellets were resuspended in two volumes of ice-cold freshly prepared extraction buffer (20mM Tris pH 8.0, 10mM Imidazole, 400mM NaCl, containing one EDTA free protease inhibitor tablet (Roche Catalog No: 1836170) per 10 ml of extraction buffer). Cells were homogenized slowly on ice using a Douncer to achieve 80-90% cell lysis. The homogenate was centrifuged in a pre-chilled rotor (Ti50 or Ti70, or equivalent) at 45,000 rpm for 30 minutes at 4°C. Aliquots of the supernatant were frozen on dry ice and stored frozen at -80°C until quantification and quality control. Aliquots of the lysates were tested in the SPA assay to ensure lot to lot consistency, and via SDS-PAGE analysis after purification using Ni-NTA Resin (Qiagen) and adjusted for protein concentration and expression level prior to use in screening assays.

Preparation of Screening Reagents

[^3H] 24,25 Epoxycholesterol (EC) solution: For a single 384-well plate (or 400 wells), 21 μL of [^3H] EC (specific activity 76.5 Ci/mmol, concentration 3.2 mCi/mL) was added to 4.4 mL of 2x SPA buffer to provide for a final concentration of 200 nM. For each additional 384-well plate, an additional 19.1 μL of [^3H] EC was added to 4.0 mL of additional 2x SPA buffer. The final concentration of [^3H] EC in the well was 50 nM. LXR α lysate (prepared as above) was diluted with protein lysate dilution buffer. 1400 μL of diluted LXR α lysate was prepared per 384-well plate, (or 200 wells) and 1120 μL of

diluted LXR α lysate was prepared for each additional 384-well plate. LXR β lysate (prepared as above) was diluted with protein lysate dilution buffer. 1400 μ L of diluted LXR β lysate was prepared per 384-well plate, (or 200 wells) and 1120 μ L of diluted LXR β lysate was prepared for each additional 384-well plate. SPA bead solution: For a 384-well plate (or 400 wells), 3.75 mL of 2x SPA buffer w/o EDTA, 2.25 mL of H₂O, and 1.5 mL of Ysi His-tag SPA beads (vortex well before taking) were mixed together. For each additional 384-well plate, an additional 3.5 mL of 2x SPA buffer w/o EDTA, 2.1 mL of H₂O, and 1.4 mL of Ysi His-tag SPA beads were mixed together.

Procedure:

Appropriate dilutions of each compound were prepared and pipetted into the appropriate wells of a multiwell plate. 9.1 μ L of [³H] EC was added to each well of column 2-23 of the multiwell plate. 5 μ L of diluted LXR α lysate was added to each well of column 2-23 on odd rows of the multiwell plate. 5 μ L of diluted LXR β lysate was added to each well of column 2-23 on even rows of the multiwell plate. 17.5 μ L of SPA bead solution was added to each well of column 2-23 of the multiwell plate.

The plates were covered with clear sealer and placed in an incubator at ambient temperature for 1 hour. After incubation plates were analyzed using a luminescent plate reader (MicroBeta, Wallac) using the program n ABASE 3H_384DPM. The setting for n ABASE 3H_384DPM was: Counting Mode: DPM; Sample Type: SPA; ParaLux Mode: low background; Count time: 30 sec.

Assays for LXR α and LXR β were performed in the identical manner. The determined Ki represents the average of at least two independent dose response experiments. The binding affinity for each compound may be determined by non-linear regression analysis using the one site competition formula to determine the IC₅₀ where:

$$Y = \text{Bottom} + \frac{(\text{Top} - \text{Bottom})}{(1 + 10^{X - \log \text{IC}_{50}})}$$

The Ki is then calculated using the Cheng and Prusoff equation where:

$$K_i = \text{IC}_{50} / (1 + [\text{Concentration of Ligand}] / K_d \text{ of Ligand})$$

For this assay, typically the Concentration of Ligand = 50 nM and the K_d of EC for the receptor is 200 nM as determined by saturation binding.

The compounds of the invention demonstrated the ability to bind to LXR α and/or LXR β when tested in this assay.

Example 109

Co-Transfection Assay

To measure the ability of compounds to activate or inhibit the transcriptional activity of LXR in a cell based assay, the co-transfection assay was used. It has been shown that LXR functions as a

heterodimer with RXR. For the co-transfection assay, expression plasmids for LXR and RXR are introduced via transient transfection into mammalian cells along with a luciferase reporter plasmid that contains one copy of a DNA sequence that is bound by LXR-RXR heterodimers (*LXRE*; Willy, P. *et.al.* 1995). Treatment of transfected cells with an LXR agonist increases the transcriptional activity of LXR, which is measured by an increase in luciferase activity. Similarly, LXR antagonist activity can be measured by determining the ability of a compound to competitively inhibit the activity of a LXR agonist.

Required Materials

CV-1 African Green Monkey Kidney Cells Co-transfection expression plasmids, comprising full-length LXR α (pCMX-h LXR α , LXR β (pCMX-hLXR β), or RXR α (pCMX-RXR), reporter plasmid (LXREx1-Tk-Luciferase), and control (pCMX-Galactosidase expression vector) (Willey et al. *Genes & Development* 9 1033-1045 (1995)).

Transfection reagent such as FuGENE6 (Roche).

1x Cell lysis buffer (1 % Triton X 100 (JT Baker X200-07), 10% Glycerol (JT Baker M778-07), 5 mM Dithiothreitol (Quantum Bioprobe DTT03; add fresh before lysing),

1 mM EGTA (Ethylene Glycol-bis (B-Amino ethyl ether)-N,N,N',N'-Tetracetic Acid) (Sigma E-4378), 25 mM Tricine (ICN 807420) pH 7.8)

1x Luciferase assay buffer (pH at 7.8) (0.73 mM ATP, 22.3 mM Tricine, 0.11 mM EDTA, 33.3 mM DTT)

1x Luciferrin/CoA (11 mM Luciferin, 3.05 mM Coenzyme A, 10 mM HEPES)

Preparation of Screening Reagents

CV-1 cells were prepared 24 hours prior to the experiment by plating them into T-175 flasks or 500 cm² dishes in order to achieve 70-80% confluency on the day of the transfection. The number of cells to be transfected was determined by the number of plates to be screened. each 384 well plate requires 1.92x10⁶ cells or 5000 cells per well. DNA Transfection Reagent was prepared by mixing the required plasmid DNAs with a cationic lipid transfection reagent FuGENE6 (Roche) by following the instructions provided with the reagents. Optimal DNA amounts were determined empirically per cell line and size of vessel to be transfected. 10-12 mL of media was added to the DNA Transfection Reagent and this mixture was added to the cells after aspirating media from the T175 cm² flask. Cells were then incubated at least 5 hours at 37°C to prepare screening cells.

Luciferase assay reagent was prepared by combining before use (per 10 mL): 10 mL 1x Luciferase assay buffer; 0.54 mL of 1x Luciferrin/CoA; 0.54 mL of 0.2 M Magnesium sulfate

Procedure

Assay plates were prepared by dispensing 5 μ L of compound per well of a 384 well plate to achieve final compound concentration of 10 μ M and no more than 1% DMSO. Media was removed from the screening cells, the cells trypsinized, harvested cells by centrifugation, counted, and plated at a density of approximately 5000 cells per well in the 384 well assay plate prepared above in a volume of about 45 μ L. Assay plates containing both compounds and screening cells (50 μ L in total volume) were incubated for 20 hours at 37°C.

After incubation with compounds, media was removed from the cells and lysis buffer (30 μ L/well) added. After 30 minutes at ambient temperature, luciferase assay buffer (30 μ L/well) was added and the assay plates read on a luminometer (PE Biosystems Northstar reader with on-board injectors, or equivalent). Plates were read immediately after addition of luciferase assay buffer.

The LXR/LXRE co-transfection assay can be used to establish the EC₅₀/IC₅₀ values for potency and percent activity or inhibition for efficacy. Efficacy defines the activity of a compound relative to a high control ((N-(3-((4-fluorophenyl)-(naphthalene-2-sulfonyl)amino)propyl)-2,2-dimethylpropionamide)) or a low control (DMSO/vehicle). The dose response curves are generated from an 8 point curve with concentrations differing by 1/2 LOG units. each point represents the average of 4 wells of data from a 384 well plate.

The data from this assay is fitted to the following equation, from the EC₅₀ value may be solved:

$$Y = \text{Bottom} + (\text{Top} - \text{Bottom}) / (1 + 10^{((\log \text{EC}_{50} - X) * \text{HillSlope})})$$

The EC₅₀/IC₅₀ is therefore defined as the concentration at which an agonist or antagonist elicits a response that is half way between the Top (maximum) and Bottom (baseline) values. The EC₅₀/IC₅₀ values represented are the averages of at least 3 independent experiments. The determination of the relative efficacy or % control for an agonist is by comparison to the maximum response achieved by ((N-(3-((4-fluorophenyl)-(naphthalene-2-sulfonyl)-amino)propyl)-2,2-dimethylpropionamide) that is measured individually in each dose response experiment.

For the antagonist assay, a LXR agonist can be added to each well of a 384 well plate to elicit a response. The % inhibition for each antagonist is therefore a measurement of the inhibition of the activity of the agonist. In this example, 100% inhibition would indicate that the activity of a specific concentration of LXR agonist has been reduced to baseline levels, defined as the activity of the assay in the presence of DMSO only.

Compounds of the invention, when tested in this assay, demonstrated the ability to modulate the activity of LXR α and/or LXR β . Preferably, the active compounds modulate the activity of LXR with a

EC₅₀ or IC₅₀ of about 10 μM or less. More preferably, the EC₅₀ or IC₅₀ of the preferred active compounds is about 1 μM or less.

Example 110

In vivo Studies

In order to evaluate direct regulation of key target genes by the compounds of the invention, animals are administered a single oral dose of the test compound and tissues collected at various time points after dose. Male C₅₇BL/6 mice (n=8) are dosed by oral gavage with vehicle or compound. At various time points after the dose, animals are bled via the retro orbital sinus for plasma collection. Animals are then euthanized and tissues, such as liver and intestinal mucosa are collected and snap frozen for further analysis. Plasma is analyzed for a lipid parameters, such as total cholesterol, HDL cholesterol and triglyceride levels. RNA is extracted for frozen tissues and can be analyzed by quantitative real time PCR for regulation of key target genes. To identify specificity of target gene regulation by LXR subtypes, LXR deficient mice (LXRα^{-/-} or LXRβ^{-/-}) and C57BL/6 wild-type controls are used in this same protocol.

Plasma Lipid Evaluation:

To compare the effects of compounds on plasma cholesterol and triglycerides, animals are dosed with compound for one week and plasma lipid levels are monitored throughout the study. Male C57BL/6 mice (n=8) are dosed daily by oral gavage with vehicle or compound. Plasma samples are taken on day -1 (in order to group animals), day 1, 3, and 7. Samples are collected three hours after the daily dose. On day 7 of the study, following plasma collection, animals are euthanized and tissues, such as liver and intestinal mucosa are collected and snap frozen for further analysis. Plasma is analyzed for lipid parameters, such as total cholesterol, HDL cholesterol and triglyceride levels. RNA is extracted for frozen tissues and can be analyzed by quantitative real time PCR for regulation of key target genes. To identify specificity of target gene regulation by LXR subtypes, LXR deficient mice (LXRα^{-/-} or LXRβ^{-/-}) and C₅₇BL/6 wild-type controls are used in this same protocol.

Example 111

Measured EC₅₀ or IC₅₀ for LXR for compounds of the invention

Compounds of the invention, when tested as described in Example 109, demonstrated the ability to modulate the activity of LXR_α and/or LXR_β. LXR activities for various compounds of the invention are presented in the following table; those compounds with EC₅₀ or IC₅₀ values < 10 μM for at least one of LXR_α and LXR_β are considered to be active. In the following Table, IC₅₀ or EC₅₀ data is represented as follows: A = < 1 μM, B = 1 – 10 μm, and C = > 10 μM.

No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀
2	B	3	A	4	A	5	A	6	A	7	A	8	A

No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀
11	C	81	B	139	A	1145	A	1200	B	1255	B	1310	B
15	B	82	B	140	A	1146	A	1201	A	1256	B	1311	B
16	B	85	A	142	A	1147	A	1202	A	1257	B	1312	A
17	C	86	B	143	A	1148	B	1203	B	1258	B	1313	A
18	B	87	B	144	A	1149	A	1204	B	1259	B	1314	A
19	B	88	B	145	A	1150	A	1205	A	1260	B	1315	A
20	B	89	C	146	A	1151	B	1206	A	1261	A	1316	B
21	A	90	B	147	A	1152	B	1207	B	1262	A	1317	A
22	A	91	B	148	A	1153	B	1208	B	1263	B	1318	A
23	A	92	A	149	A	1154	B	1209	A	1264	B	1319	A
24	A	93	A	150	B	1155	B	1210	A	1265	A	1320	A
25	A	94	A	456	B	1156	B	1211	A	1266	B	1321	A
26	A	95	A	485	A	1157	A	1212	A	1267	B	1322	B
27	A	96	A	508	B	1158	A	1213	A	1268	A	1323	B
29	C	97	A	527	B	1159	A	1214	B	1269	B	1324	B
34	A	98	A	544	B	1160	A	1215	A	1270	B	1325	A
35	A	99	B	545	B	1161	A	1216	A	1271	B	1326	A
38	B	100	A	547	A	1162	A	1217	B	1272	B	1327	A
39	A	101	A	558	B	1163	B	1218	A	1273	A	1328	A
40	A	102	A	568	B	1164	A	1219	A	1274	B	1329	A
41	A	103	B	586	B	1165	B	1220	A	1275	B	1330	A
42	A	104	C	587	A	1166	A	1221	A	1276	B	1331	A
45	B	105	A	588	A	1167	A	1222	A	1277	A	1332	B
47	A	106	B	589	A	1168	A	1223	B	1278	A	1333	B
48	C	107	A	590	B	1169	A	1224	A	1279	B	1334	A
49	A	108	B	591	B	1170	A	1225	A	1280	B	1335	A
51	B	109	B	592	B	1171	B	1226	B	1281	A	1336	A
52	A	110	A	593	B	1172	A	1227	A	1282	B	1337	A
53	B	111	A	710	B	1173	A	1228	A	1283	B	1338	B
54	B	112	B	716	A	1174	A	1229	A	1284	B	1339	A
55	A	113	A	724	B	1175	A	1230	B	1285	B	1340	A
56	A	114	A	733	A	1176	A	1231	A	1286	B	1341	B
57	A	115	A	739	B	1177	A	1232	B	1287	B	1342	A
58	A	116	A	755	B	1178	A	1233	B	1288	B	1343	B
59	A	117	B	804	B	1179	B	1234	A	1289	B	1344	A
60	A	118	A	859	B	1180	A	1235	B	1290	B	1345	A
62	A	119	B	970	B	1181	A	1236	B	1291	B	1346	A
63	A	120	A	1000	B	1182	A	1237	B	1292	B	1347	B
64	A	121	B	1029	B	1183	A	1238	A	1293	B	1348	A
65	A	122	A	1127	B	1184	B	1239	A	1294	A	1349	A
66	A	123	A	1128	A	1185	A	1240	A	1295	B	1350	A
67	B	124	A	1129	A	1186	A	1241	B	1296	B	1351	B
68	A	125	A	1130	A	1187	A	1242	A	1297	B	1352	A
69	A	126	A	1131	A	1188	A	1243	A	1298	B	1353	A
70	A	127	A	1133	B	1189	A	1244	B	1299	B	1354	B
71	A	128	B	1134	A	1190	A	1245	A	1300	B	1355	B
72	A	130	A	1135	A	1191	A	1246	B	1301	A	1356	B
73	A	131	A	1136	B	1192	A	1247	B	1302	B	1357	A
74	A	132	B	1137	A	1193	B	1248	B	1303	B	1358	A
75	B	133	A	1138	B	1194	A	1249	B	1304	A	1359	A
76	A	134	A	1139	B	1195	A	1250	B	1305	B	1360	A
77	B	135	A	1140	B	1196	B	1251	B	1306	B	1361	A
78	A	136	A	1142	B	1197	A	1252	B	1307	A	1362	B
79	C	137	A	1143	A	1198	A	1253	B	1308	A	1363	B
80	C	138	A	1144	B	1199	B	1254	A	1309	B	1364	B

No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀	No.	EC ₅₀
1365	B	1371	A	1386	A	1393	B	1401	A	1417	B	1423	A
1366	A	1372	A	1387	A	1395	A	1402	A	1418	B	1424	A
1367	A	1373	A	1388	A	1397	A	1403	A	1419	B	1425	A
1368	A	1383	A	1389	A	1398	B	1405	C	1420	A	1426	A
1369	A	1384	A	1390	A	1399	C	1414	A	1421	A	1427	A
1370	A	1385	A	1391	A	1400	A	1415	A	1422	A		

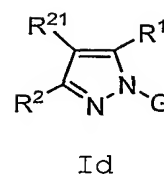
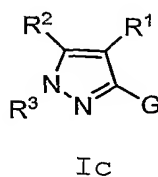
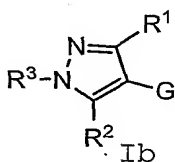
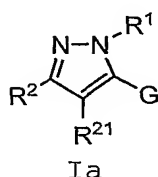
It is understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons skilled in the art and are to be incorporated within the spirit and purview of this application and scope of the appended claims. All publications, patents, and patent applications cited herein are hereby
5 incorporated herein by reference for all purposes.

All of the U.S. patents, U.S. patent application publications, U.S. patent applications, foreign patents, foreign patent applications and non-patent publications referred to in this specification and/or listed in the Sheet, are incorporated herein by reference, in their entirety.

From the foregoing it will be appreciated that, although specific embodiments of the invention have
10 been described herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the invention. This invention also encompasses all combinations of alternative aspects of the invention noted herein. It is understood that any and all embodiments of the present invention may be taken in conjunction with any other embodiment to describe additional embodiments of the present invention. Furthermore, any elements of an embodiment may be combined
15 with any and all other elements from any of the embodiments to describe additional embodiments. Accordingly, the invention is not limited except as by the appended claims.

We claim:

1. A compound according to one of the following formulas,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein,

5 (A) R^1 is $-L^1-R^5$, wherein

L^1 is a bond, L^5 , L^6 , $-L^5-L^6-L^5-$, or $-L^6-L^5-L^6-$, wherein

each L^5 is independently $-[C(R^{15})_2]_{m-}$, wherein

each R^{15} is independently hydrogen, halogen, (C_1-C_6) alkyl, (C_3-C_6) cycloalkyl, or (C_1-C_6) haloalkyl;

10 each L^6 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-NR^{11}-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CO-$, $-CS-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-CONR^{11}N(R^{11})_2-$, $-CONR^{11}-$, $-OCONR^{11}-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-SO_2N(R^{10})-$, $-NR^{10}CONR^{10}-$, $-NR^{10}CSNR^{10}-$, $-C(=NR^{11})-$, $-C(=NOR^{11})-$, $-C(=NN(R^{11})_2)-$; aryl, C_3-C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, heteroaryl, heterocyclyl, wherein the aryl, cycloalkyl, cyclo C_{3-8} haloalkyl heteroaryl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

15 or L^1 is a C_{2-6} alidiyl chain wherein the alidiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, or $-SO_2N(R^{10})-$, and

20 R^5 is aryl, heterocyclyl, heteroaryl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, C_3-C_8 cycloalkyl, $-C-$, $-B-C$, or $-A-B-C$, wherein

A is $-O-$;

25 B is $-[C(R^{15})_2]_{m-}$ or C_3-C_8 cycloalkyl;

C is C_1-C_6 alkyl, C_1-C_6 haloalkyl, SO_2R^{11} , SR^{11} , $SO_2N(R^{11})_2$, $SO_2NR^{11}COR^{11}$, $C\equiv N$, $C(O)OR^{11}$, $CON(R^{11})_2$, or $N(R^{11})_2$;

wherein R^5 is optionally substituted with one or more R^{5a} ,

30 wherein each R^{5a} is independently C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-,

halogen, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is $-\text{[C(R}^{15})_2]_m-$ or -C₃-C₈ cycloalkyl-;

C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl;

wherein each R^{5a} is optionally substituted one or more groups which are independently C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, C₀-C₆ alkoxyaryl, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, aryl, aryl-C₁-C₆ alkyl-, heteroaryl, halogen, -C≡N, -NO₂, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -SO₂R¹¹, -OR¹¹, -SR¹¹, -SO₂R¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, or -N(R¹¹)₂;

R² and R²¹ are -L³-R⁷, wherein

each L³ is independently a bond -V¹-(CH₂)_n-V¹-, or -(CH₂)_m-V¹-(CH₂)_n- wherein

n is 0-6; and

each V¹ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -OCO-, -CO-, -CS-, -CONR¹⁰-, -C(=N)(R¹¹)-, -C(=N-OR¹¹)-, -C[=N-N(R¹¹)₂], -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, C₃-C₈ cycloalkyl, or C₃-C₈ cyclohaloalkyl;

or each L³ is independently a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-, -N(R¹⁰)SO₂-, or -SO₂N(R¹⁰); and

each R⁷ is independently hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, -Z-, -Y-Z, or -X-Y-Z, wherein

X is -O-;

Y is $-\text{[C(R}^{15})_2]_m-$, -C₂-C₆ alkenyl, or C₃-C₈ cycloalkyl;

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹;

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C_2 - C_6 alkenyl, $-C_1$ - C_6 alkyl-heterocyclyl, $-C_1$ - C_6 alkyl-heteroaryl, $-C_1$ - C_6 alkyl-aryl, C_0 - C_6 alkoxyheteroaryl, C_0 - C_6 alkoxyheterocyclyl, haloaryl, aryloxy, aralkyloxy, aryloxyalkyl, C_1 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, $C(R^{11})=C(R^{11})-COOR^{11}$, C_0 - C_6 alkoxyheteroaryl, C_0 - C_6 alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, C_3 - C_8 cycloalkyl, heteroaryloxy, $-Z'$, $-Y'-Z'$, or $-X'-Y'-Z'$, wherein

X' is $-O-$;

Y' is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

Z' is $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-OR^{11}$, $-SR^{11}$, $-S(=O)_2R^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N(R^{11})C(=O)R^{11}$, $-S(=O)_2N(R^{11})C(=O)R^{11}$, $-CN$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-OR^{11}$, $-N(R^{11})C(=O)O-R^{11}$, or $-N(R^{11})S(=O)_2R^{11}$;

wherein each R^{7a} is optionally substituted with one or more R^8 ,

wherein each R^8 is independently halogen, nitro, cyano, heteroaryl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkyl(OR^{11}), C_0 - C_6 alkyl OR^{11} , C_0 - C_6 alkyl $CON(R^{11})_2$, C_0 - C_6 alkyl COR^{11} , C_0 - C_6 alkyl $COOR^{11}$, or C_0 - C_6 alkyl SO_2R^{11} ; and wherein if two R^{7a} are present on the same carbon, then they may be taken together to form a cycloalkyl or heterocyclyl group;

provided that R^2 and R^{21} are not simultaneously $-H$;

R^3 is $-L-R^6$, wherein

L is a bond, $-X^3-(CH_2)_n-X^3-$, $-(CH_2)_m-X^3-(CH_2)_n-$ or $-(CH_2)_{1+w}-Y^3-(CH_2)_w-$ wherein

n is 0-6; each w is independently 0-5; and

each X^3 is independently a bond, $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C\equiv C-$, $-CO-$, $-CS-$, $-CONR^{10}-$, $-C(=N)(R^{11})-$, $-C(=N-OR^{11})-$, $-C[=N-N(R^{11})_2]$, $-CO_2-$, $-SO_2-$, or $-SO_2N(R^{10})-$; and

Y^3 is $-O-$, $-S-$, $-NR^7-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-OCO-$, $-OC(=O)N(R^{10})-$, $-NR^{10}CONR^{10}-$, $-N(R^{10})SO_2-$, or $-NR^{10}CSNR^{10}-$;

or L is a C_{2-6} alidiyl chain, wherein the alidiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, or $-SO_2N(R^{10})$; and

R^6 is C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, aryl, C_3 - C_8 cycloalkyl, heteroaryl, heterocyclyl, $-CN$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, or $-C(=O)N(R^{11})(OR^{11})$, wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with one or more R^{6a} ,

wherein

each R^{6a} is independently $-Z''$, $-Y''-Z''$, or $-X''-Y''-Z''$, wherein

X'' is $-O-$;

Y'' is $-[C(R^{15})_2]_m-$, C_2 - C_6 alkenyl, C_3 - C_8 cycloalkyl, heterocyclyl, aryl, or heteroaryl, wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with at least one group which is each independently Z'' ;

Z'' is $-H$, $-CN$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-N_3$, $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-N(R^{11})C(=O)N(R^{11})_2$, $-OC(=O)-OR^{11}$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$, $-OC(=O)-N(R^{11})_2$, or $-N(R^{11})COOR^{11}$;

each R^{10} is independently $-R^{11}$, $-C(=O)R^{11}$, $-CO_2R^{11}$, or $-SO_2R^{11}$;

each R^{11} is independently $-hydrogen$, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, $-N(R^{12})_2$, $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-C_3$ - C_8 cycloalkyl, $-(C_1$ - C_6)alkyl- $(C_3$ - C_8)cycloalkyl, aryl, $-(C_1$ - C_6)alkyl-aryl, heteroaryl, $-(C_1$ - C_6)alkyl-heteroaryl, heterocyclyl, or $-(C_1$ - C_6)alkyl-heterocyclyl,

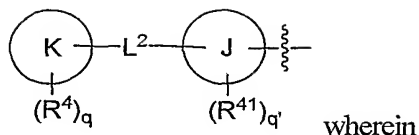
wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently hydrogen, halogen, C_1 - C_6 haloalkyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, $(C_0$ - C_6 alkyl) $C=O(OR^{13})$, C_0 - C_6 alkyl OR^{13} , C_0 - C_6 alkyl COR^{13} , C_0 - C_6 alkyl SO_2R^{13} , C_0 - C_6 alkyl CN , C_0 - C_6 alkyl $CON(R^{13})_2$, C_0 - C_6 alkyl $CONR^{13}OR^{13}$, C_0 - C_6 alkyl $SO_2N(R^{13})_2$, C_0 - C_6 alkyl SR^{13} , C_0 - C_6 haloalkyl OR^{13} , aryloxy, aralkyloxy, aryloxyalkyl, C_0 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, C_0 - C_6 alkyl $NR^{13}SO_2R^{13}$, $-C_0$ - C_6 alkyl $IN(R^{13})_2$, or OC_0 - C_6 alkyl $COOR^{13}$;

each R^{13} is independently hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(C_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(C_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, or $(C_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-;

each R^{14} is independently C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, C_1 - C_6 haloalkyl, C_0 - C_6 alkyl $CON(R^{11})_2$, C_0 - C_6 alkyl $CONR^{11}OR^{11}$, C_0 - C_6 alkyl OR^{11} , or C_0 - C_6 alkyl $COOR^{11}$;

G is a group of the formula,



J is aryl, heteroaryl, or absent;

K is aryl, heteroaryl, or absent;

each R^4 is independently halogen, nitro, C_2 - C_6 alkenyl, C_3 - C_8 cycloalkyl, $-C_1$ - C_6 alkyl-heterocyclyl, $-C_1$ - C_6 alkyl-heteroaryl, $-C_1$ - C_6 alkyl-aryl, -heterocyclyl-aryl, -heterocyclyl-heteroaryl, $CR^{11}=CR^{11}COOR^{11}$, aryloxy, -S-aryl, aralkyloxy, aryloxyalkyl, C_1 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, C_0 - C_6 alkoxyheteroaryl, C_0 - C_6 alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, -M, -E-M, or -D-E-M, wherein

D is -O-;

E is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

M is C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-N_3$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$ or $-SR^{11}$,

wherein each R^4 is optionally substituted with one or more R^{4a} ,

wherein each R^{4a} is independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, $-C_1$ - C_6 alkyl-aryl, C_1 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, -M', -E'-M', or -D'-E'-M'

D' is -O-;

E' is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

M' is $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, COR^{11} , $-CON(R^{11})_2$, $-N(R^{11})COOR^{11}$, $-N(R^{11})_2$, $COOR^{11}$, $C\equiv N$, OR^{11} , $-NR^{11}COR^{11}$, $NR^{11}SO_2R^{11}$, SO_2R^{11} , $SO_2N(R^{11})_2$ or SR^{11} ;

each R^{41} is independently halogen, nitro, C_1 - C_6 alkyl-heterocyclyl, $-C_1$ - C_6 alkyl-heteroaryl, $-C_1$ - C_6 alkyl-aryl, -M'', -E''-M'', or -D''-E''-M'', wherein

D'' is -O-;

E'' is $-[C(R^{15})_2]_m-$ or C_3 - C_8 cycloalkyl;

M'' is $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$, $-N_3$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$ or $-SR^{11}$,

wherein each R^{41} is optionally substituted with one or more R^{4a} ;

L^2 is a bond, $-CH=CHCOO-$, $-OC_0$ - C_6 alkyl $COO-$, $-[C(R^{15})_2]_m-V^2-[C(R^{15})_2]_n-$, or $-V^2-[C(R^{15})_2]_m-V^2-$, wherein

n is 0-6; and

each V^2 is independently $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2NR^{11}-$, $-C(R^{11})_2O-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CON(R^{11})-$, $-CON(R^{11})O-$, $-CO-$, $-CS-$, $-CO_2-$, $-OR^{11}N-$, $-OR^{11}COO-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-SO_2N(R^{10})-$, $-NR^{10}CONR^{10}-$, C_3-C_8 cycloalkyl, $-C(=NR^{11})-$, $-C(=NOR^{11})-$, $-C(=NN(R^{11})_2)-$, $-NR^{10}CSNR^{10}-$, $-C(O)-$ heterocyclyl, or cyclo C_{3-8} haloalkyl, wherein the heterocyclyl is optionally substituted with one or more groups independently selected from $-OR^{11}$, $-COOR^{11}$, and $-CON(R^{11})_2$;

or L^2 is a C_{2-6} alidiyl chain, wherein alidiyl chain is optionally interrupted by $-C(R^{11})_2-$, $-C(R^{11})_2C(R^{11})_2-$, $-C(R^{11})=C(R^{11})-$, $-C(R^{11})_2O-$, $-C(R^{11})_2NR^{11}-$, $-C(R^{11})_2NR^{11}-$, $-C\equiv C-$, $-O-$, $-S-$, $-N(R^{10})CO-$, $-N(R^{10})CO_2-$, $-CON(R^{10})-$, $-CON(R^{11})-$, $-CON(R^{11})O-$, $-CO-$, $-CO_2-$, $-OC(=O)-$, $-OC(=O)N(R^{10})-$, $-SO_2-$, $-N(R^{10})SO_2-$, $-SO_2N(R^{10})-$; aryl, C_3-C_8 cycloalkyl, heteroaryl, or heterocyclyl

wherein the aryl, cycloalkyl, heteroaryl, or heterocyclyl is optionally substituted with one or more R^9 , wherein

each R^9 is independently halogen, C_1-C_6 haloalkyl, C_1-C_6 alkyl, C_1-C_6 alkyloxy, C_0-C_6 alkyl or C_1-C_6 alkylCOOR¹¹;

each m is independently 0, 1, 2, 3, 4, 5 or 6;

q is 0, 1, 2, 3, 4 or 5; and

q' is 0, 1, 2, 3, or 4,

(B) provided that,

- (i) q may be 0 only if L^2 is not a bond or if K is not phenyl;
- (ii) the compound is not 2-methyl-5-(1-m-tolyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)benzenesulfonamide;
- (iii) if L^2 is a bond, then both J and K are not absent;
- (iv) if K is absent, then q is 1 and R^4 is bonded directly to L^2 ;
- (v) if L^2 is SO_2 or $SO_2N(R^{10})$, then R^5 is substituted with at least one R^{5a} ;
- (vi) if the compound is defined by formula Ia, then

- (a) R^1 is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
- (b) if R^1 is 4-fluorophenyl, then G is not 4-[($H_2NS(=O)_2$)]phenyl; and
- (c) R^2 and R^{21} are not 4-hydroxyphenyl;

- (vii) if the compound is defined by formula Ib, then
- (a) R^2 and R^3 are not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl; and
 - (b) R^1 is not 4-hydroxyphenyl;

- 5 (viii) if the compound is defined by formula Ic, then
- (a) R^2 and R^3 are not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;
 - (b) J is not pyridyl; and
 - (c) G is not 3- or 4-methoxyphenyl; and

- 10 (ix) if the compound is defined by formula Id, then
- (a) if L^1 is a bond, then R^1 is not thienyl or 5-methylthienyl;
 - (b) G is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl;

- 15 (c) if G is 4-fluorophenyl, then R^1 is not 4-[($\text{H}_2\text{NS}(=\text{O})_2$)]phenyl;

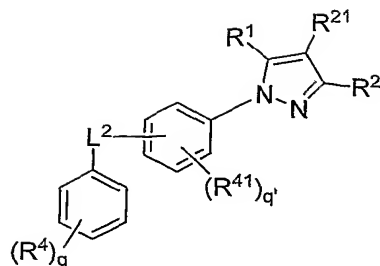
- (d) if J = Ph, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl, 3-fluorophenyl, 4-methoxyphenyl, or 5-chlorothieryl;

- 20 (e) if J = pyridyl, L^2 is a bond, and q is 1, then K and R^4 together are not 4-fluorophenyl;

- (f) if J = Ph, L^2 is a bond, and q is 2, then K and both R^4 together are not 3-fluoro-4-methoxyphenyl; and

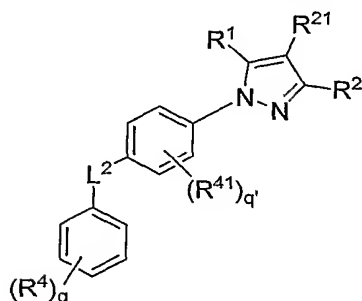
- (g) R^1 is not 4-Me-phenyl.

- 25 2. The compound according to claim 1, wherein J is phenyl.
3. The compound according to claim 1, wherein K is phenyl or pyridyl.
4. The compound according to claim 2 wherein K is phenyl.
5. The compound according to claim 4, of the formula,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

6. The compound according to claim 5, of the formula,



- 5 or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl.
7. The compound according to claim 6, wherein L^2 is a bond.
8. The compound according to claim 6, wherein L^1 is a bond and R^5 is phenyl optionally substituted with one or more R^{5a} .
- 10 9. The compound according to claim 7, wherein L^1 is a bond and R^5 is phenyl optionally substituted with one or more R^{5a} .
10. The compound according to claim 9, wherein each R^{5a} is independently halogen, $-C'$, or $-B'-C'$, wherein
- B' is $-[C(R^{15'})_2]_m-$, wherein
- 15 each $R^{15'}$ is independently $-H$ or $-halogen$; and
- C' is $-H$, $-halogen$, $-SO_2R^{11}$, $-OR^{11}$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.
11. The compound according to claim 10, wherein each R^{5a} is independently $-halogen$, $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.
- 20 12. The compound according to claim 9, wherein each R^{41} is independently hydrogen, halogen, $-C_1$ - C_6 alkyl, or $-C_1$ - C_6 haloalkyl, $-COR^{16}$, $-COOR^{16}$, $-CON(R^{16})_2$, $-C\equiv N$, $-OR^{16}$, or $-N(R^{16})_2$, wherein each R^{16} is independently hydrogen, $-C_1$ - C_6 alkyl, or $-C_1$ - C_6 haloalkyl.

13. The compound according to claim 12, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

14. The compound according to claim 9, wherein each R^4 is independently halogen, nitro, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-OCON(R^{11})_2$, $-OCO_2R^{11}$,
 5 $-N_3$, $-NR^{11}COR^{11}$, $-NR^{11}SO_2R^{11}$, $-N(R^{11})_2$, $-NR^{11}COOR^{11}$, $-SO_2R^{11}$, $-SO_2NR^{11}COR^{11}$, $-SO_2N(R^{11})_2$, or $-SR^{11}$.

15. The compound according to claim 14, wherein each R^4 is independently halogen, nitro, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-N(R^{11})_2$, $-SO_2R^{11}$, or $-SO_2N(R^{11})_2$.

10 16. The compound according to claim 9, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and R^7 is hydrogen, halogen, nitro, cyano, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m$;

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
 $-SO_2R^{11}$, $-S(=O)_2N(R^{11})_2$, $-C(=O)N(R^{11})N(R^{11})_2$, $-C(=O)N(R^{11})(OR^{11})$, $-OC(=O)-R^{11}$,
 15 or $-OC(=O)-N(R^{11})_2$.

17. The compound according to claim 16, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and R^7 is hydrogen, halogen, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m$, wherein

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
 20 $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

18. The compound according to claim 11, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

19. The compound according to claim 13, wherein each R^4 is independently halogen, nitro, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-N(R^{11})_2$, $-SO_2R^{11}$, or
 25 $-SO_2N(R^{11})_2$.

20. The compound according to claim 15, wherein R^2 is $-L^3-R^7$, wherein L^3 is a bond; and R^7 is hydrogen, halogen, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m$, wherein

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$,
 30 $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

21. The compound according to claim 17, wherein each R^{5a} is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

22. The compound according to claim 18, wherein each R^4 is independently halogen, nitro, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-N(R^{11})_2$, $-SO_2R^{11}$, or $-SO_2N(R^{11})_2$.

23. The compound according to claim 19, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and R^7 is hydrogen, halogen, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m-$, wherein

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

24. The compound according to claim 20, wherein each R^{5a} is independently $-halogen$, $-C_1$ - C_6 alkyl, $-C_1$ - C_6 haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

25. The compound according to claim 21, wherein each R^{41} is independently hydrogen, halogen, $-C_1$ - C_6 alkyl, or $-C_1$ - C_6 haloalkyl.

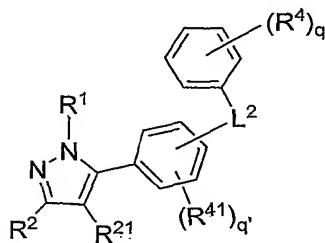
26. The compound according to claim 22, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and R^7 is hydrogen, halogen, $-Z$, or $-Y-Z$, wherein

Y is $-[C(R^{15})_2]_m-$, wherein

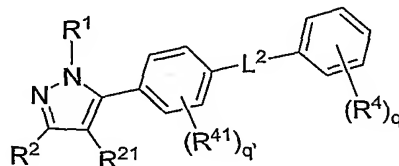
Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$.

27. The compound according to claim 4, of the formula,



20 or a pharmaceutically acceptable salt, isomer, or prodrug thereof, wherein R^{21} is hydrogen, halogen, nitro, cyano, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl.

28. The compound according to claim 25, of the formula,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

29. The compound according to claim 28, wherein

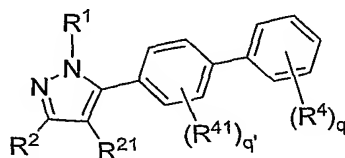
L^2 is a bond or $-[C(R^{15})_2]_m-V^2-[C(R^{15})_2]_n-$, wherein

m'' is 0; n' is 0-3; and V_2 is -O-, -S-, -OC(=O)-, -OC(=O)O-, or -OC(=O)N(R¹⁰)-.

30. The compound according to claim 29, wherein L^2 is a bond.

31. The compound according to claim 30, wherein L^1 is a bond; and R^5 is aryl or heteroaryl optionally substituted with one or more R^{5a} .

5 32. The compound according to claim 31, of the formula



or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

33. The compound according to claim 32, wherein R^5 is phenyl optionally substituted with one or more R^{5a} .

10 34. The compound according to claim 33, wherein each R^{5a} is independently halogen, -C', or -B'-C', wherein

B' is $-[C(R^{15'})_2]_{m'}$, wherein each $R^{15'}$ is independently -H or -halogen; and

C' is -H, -halogen, -SO₂R¹¹, -OR¹¹, -COR¹¹, -SO₂N(R¹¹)₂, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

15 35. The compound according to claim 34, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

36. The compound according to claim 33, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹⁶, -COOR¹⁶, -CON(R¹⁶)₂, -C≡N, -OR¹⁶, or -N(R¹⁶)₂, wherein

each R^{16} is independently hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl.

20 37. The compound according to claim 36, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

38. The compound according to claim 33, wherein each R^4 is independently halogen, -M, or -E-M, wherein

E is $-[C(R^{15})_2]_{m'}$;

25 M is C₁-C₆alkyl, C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂, -OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SO₂R¹¹, -SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹.

39. The compound according to claim 38, wherein each R^4 is independently halogen, -M, or -E-M, wherein

30 E is $-[C(R^{15'})_2]_{m'}$, wherein

each $R^{15'}$ is independently -H or -halogen; and

M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, or -SO₂N(R^{11'})₂, wherein

each R^{11'} is independently -hydrogen, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl,

wherein each R^{11'} is optionally substituted with -OR¹³, -COOR¹³, -COR¹³, -SO₂R¹³, -CON(R¹³)₂, -SO₂N(R¹³)₂, or -N(R¹³)₂.

40. The compound according to claim 33, wherein R² is -L³-R⁷, wherein

L³ is a bond, -C(R¹¹)₂-, -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -CO-, -CS-, -CONR¹¹-, -CO₂-, -OC(=O)-, or -SO₂-; and

R⁷ is hydrogen, halogen, heterocyclyl, -Z, or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m-;

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, or -OC(=O)-N(R¹¹)₂.

41. The compound according to claim 40, wherein R² is -L³-R⁷, wherein

L³ is a bond, -C(R^{11''})₂-, -CO-, or -SO₂-; and

R⁷ is hydrogen, halogen, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl.

42. The compound according to claim 35, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

43. The compound according to claim 37, wherein each R⁴ is independently halogen, -M, or -E-M, wherein

E is -[C(R^{15'})₂]_m-, wherein

each R^{15'} is independently -H or -halogen; and

M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, or -SO₂N(R^{11'})₂, wherein

each R^{11'} is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl,

wherein each R^{11'} is optionally substituted with -OR¹³, -COOR¹³, -COR¹³, -SO₂R¹³, -CON(R¹³)₂, -SO₂N(R¹³)₂, or -N(R¹³)₂.

44. The compound according to claim 39, wherein R² is -L³-R⁷, wherein

L³ is a bond, -C(R^{11''})₂-, -CO-, or -SO₂-; and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11'}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

45. The compound according to claim 41, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

46. The compound according to claim 42, wherein each R^4 is independently $halogen$, $-M$, or $-E-M$, wherein

E is $-[C(R^{15'})_2]_m-$, wherein

each $R^{15'}$ is independently $-H$ or $-halogen$; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl,

wherein each $R^{11'}$ is optionally substituted with $-OR^{13}$, $-COOR^{13}$, $-COR^{13}$, $-SO_2R^{13}$, $-CON(R^{13})_2$, $-SO_2N(R^{13})_2$, or $-N(R^{13})_2$.

47. The compound according to claim 43, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond, $-C(R^{11''})_2-$, $-CO-$, or $-SO_2-$; and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11'}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

48. The compound according to claim 44, wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

49. The compound according to claim 45, wherein each R^{41} is independently $hydrogen$, $halogen$, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

50. The compound according to claim 46, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond, $-C(R^{11''})_2-$, $-CO-$, or $-SO_2-$; and

R^7 is hydrogen, halogen, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11'}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

wherein each $R^{11''}$ is independently $-H$ or $-C_1-C_6$ alkyl.

51. The compound according to claim 31, wherein R^5 is $pyridyl$ optionally substituted with one or more R^{5a} .

52. The compound according to claim 51, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.
53. The compound according to claim 51, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.
- 5 54. The compound according to claim 51, wherein R^2 is -L³-R⁷, wherein
 L^3 is a bond or -C(R^{11''})₂-; and
 R^7 is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''},
-C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,
wherein each $R^{11''}$ is independently -H or -C₁-C₆alkyl.
- 10 55. The compound according to claim 51, wherein each R^4 is independently halogen -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, or -SO₂N(R^{11'})₂,
wherein each $R^{11'}$ is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl.
56. The compound according to claim 29, wherein
 L^2 is -V²-[C(R¹⁵)₂]_n-, wherein
15 n is 0-3; and V² is -O-, -S-, -OC(=O)-, -OC(=O)O-, or -OC(=O)N(R¹⁰)-.
57. The compound according to claim 56, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.
58. The compound according to claim 56, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.
- 20 59. The compound according to claim 56, wherein R^2 is -L³-R⁷, wherein
 L^3 is a bond or -C(R^{11''})₂-; and
 R^7 is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''},
-C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,
wherein each $R^{11''}$ is independently -H or -C₁-C₆alkyl.
- 25 60. The compound according to claim 56, wherein each R^4 is independently halogen -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, or -SO₂N(R^{11'})₂,
wherein
each $R^{11'}$ is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl.
61. The compound according to claim 2, wherein
30 K is absent; q is 1; and
 L^2 is -V²-[C(R¹⁵)₂]_n-, wherein
n is 0-6; and V₂ is -O-, -S-, -SO₂-, -CON(R¹⁰)-, -CON(R¹¹)-, -CO-, -CO₂-, -OC(=O)-,
-OC(=O)O-, or -OC(=O)N(R¹⁰)-;

and R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

62. The compound according to claim 61, wherein

L² is -CO-; and

R⁴ is heterocyclcyl optionally substituted with one or more groups which independently are -M',

wherein

M' is -H, halogen, COR¹¹, COOR¹¹, C≡N, OR¹¹, -NR¹¹COR¹¹, NR¹¹SO₂R¹¹, SO₂R¹¹,
SO₂N(R¹¹)₂, or SR¹¹.

63. The compound according to claim 62, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

64. The compound according to claim 62, wherein R² is -L³-R⁷, wherein

L³ is a bond or -C(R^{11''})₂-; and

R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''},
-C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl.

65. The compound according to claim 62, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

66. The compound according to claim 61, wherein

L² is -O-; and

R⁴ is -E-M, wherein

E is -[C(R¹⁵)₂]_m-;

M is -H, halogen, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂, -OCO₂-R¹¹,
-N(R¹¹)₂.

67. The compound according to claim 66, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

68. The compound according to claim 66, wherein each R^{5a} is independently -halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

69. The compound according to claim 66, wherein R² is -L³-R⁷, wherein

L³ is a bond or -C(R^{11''})₂-; and

R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''},
-C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl.

70. The compound according to claim 61, wherein

L² is -V²-[C(R¹⁵)₂]_n-, wherein

n is 0-6; and

V² is -CON(R¹¹)- or -CO₂-; and

R⁴ is heterocyclyl, or -E-M, wherein

E is -[C(R¹⁵)₂]_m-; and

5 M is -H, halogen, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -OCON(R¹¹)₂,
-OCO₂-R¹¹, -N₃, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SO₂R¹¹,
-SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹.

71. The compound according to claim 70, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

10 72. The compound according to claim 70, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

73. The compound according to claim 70, wherein R² is -L³-R⁷, wherein

L³ is a bond or -C(R^{11''})₂-; and

15 R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''},
-C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl.

74. The compound according to claim 1, wherein J is heteroaryl; and

R²¹ is hydrogen, halogen, nitro, cyano, C₁-C₆alkyl, or C₁-C₆haloalkyl.

75. The compound according to claim 74, wherein J is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl,
20 isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl.

76. The compound according to claim 75, wherein K is phenyl.

77. The compound according to claim 75, wherein J is pyridyl.

78. The compound according to claim 77, wherein L¹ is a bond; and R⁵ is phenyl optionally substituted with one or more R^{5a}.

25 79. The compound according to claim 78, wherein K is phenyl.

80. The compound according to claim 79, wherein each R⁴¹ is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

81. The compound according to claim 79, wherein R² is -L³-R⁷, wherein

L³ is a bond or -C(R^{11''})₂-; and

30 R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11''}, -C(=O)R^{11''},
-C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, -SO₂R^{11''}, or -S(=O)₂N(R^{11''})₂,

wherein each R^{11''} is independently -H or -C₁-C₆alkyl.

82. The compound according to claim 79, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$, wherein

each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

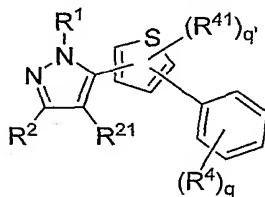
83. The compound according to claim 79, wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

84. The compound according to claim 75, wherein J is thienyl, furyl, or pyrrolyl.

85. The compound according to claim 84, wherein J is thienyl.

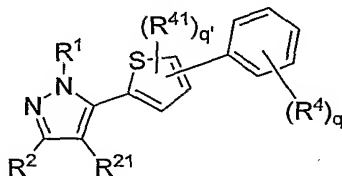
86. The compound according to claim 85, wherein K is phenyl and L^2 is a bond.

87. The compound according to claim 86, of the formula



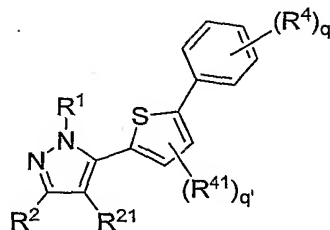
or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

88. The compound according to claim 87, of the formula,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

89. The compound according to claim 88, of the formula,



or a pharmaceutically acceptable salt, isomer, or prodrug thereof.

90. The compound according to claim 89, wherein L^1 is a bond; and R^5 is phenyl optionally substituted with one or more R^{5a} .

91. The compound according to claim 90, wherein each R^{5a} is independently halogen, nitro, heterocycloxy, aryloxy, $-C'$, $-B'-C'$ or $-A'-B'-C'$ wherein

A' is -O-;

B' is $-\text{[C(R}^{15})_2]_m-$;

C' is -H, halogen, $-\text{SO}_2\text{R}^{11}$, $-\text{OR}^{11}$, $-\text{SR}^{11}$, $-\text{COR}^{11}$, $-\text{SO}_2\text{N(R}^{11})_2$, $-\text{SO}_2\text{NR}^{11}\text{COR}^{11}$, $-\text{C}\equiv\text{N}$, $-\text{C(O)OR}^{11}$, $-\text{OC(=O)R}^{11}$, $-\text{CON(R}^{11})_2$, $-\text{CON(R}^{11})\text{OR}^{11}$, $-\text{OCON(R}^{11})_2$, $-\text{NR}^{11}\text{COR}^{11}$, $-\text{NR}^{11}\text{CON(R}^{11})_2$, $-\text{NR}^{11}\text{COOR}^{11}$, $-\text{N(R}^{11})_2$, aryl, heteroaryl, or heterocyclyl;

wherein each R^{5a} is optionally substituted one or more groups which are independently $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_3\text{-C}_8$ cycloalkyl, halogen, $-\text{C}\equiv\text{N}$, $-\text{COR}^{11}$, $-\text{COOR}^{11}$, $-\text{CON(R}^{11})_2$, $-\text{SO}_2\text{R}^{11}$, $-\text{OR}^{11}$, $-\text{SR}^{11}$, $-\text{SO}_2\text{R}^{11}$, $-\text{SO}_2\text{N(R}^{11})_2$, $-\text{SO}_2\text{NR}^{11}\text{COR}^{11}$, $-\text{OCON(R}^{11})_2$, $-\text{NR}^{11}\text{COR}^{11}$, $-\text{NR}^{11}\text{CON(R}^{11})_2$, $-\text{NR}^{11}\text{COOR}^{11}$, or $-\text{N(R}^{11})_2$.

92. The compound according to claim 91, wherein each R^{5a} is independently halogen, nitro, heterocyclyloxy, phenoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is $-\text{[C(R}^{15})_2]_m-$;

C' is -H, halogen, $-\text{OR}^{18}$, $-\text{COR}^{18}$, $-\text{C}\equiv\text{N}$, $-\text{C(O)OR}^{18}$, $-\text{OC(=O)R}^{18}$, $-\text{CON(R}^{18})_2$, $-\text{OCON(R}^{18})_2$, $-\text{NR}^{18}\text{COR}^{18}$, $-\text{NR}^{18}\text{CON(R}^{18})_2$, $-\text{NR}^{18}\text{COOR}^{18}$, $-\text{N(R}^{18})_2$, or heterocyclyl;

wherein each R^{18} is independently -H, $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_1\text{-C}_6$ haloalkyl, $\text{C}_3\text{-C}_8$ cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

wherein each R^{5a} is optionally substituted one or more groups which are independently $\text{C}_1\text{-C}_6$ alkyl, halogen, $-\text{COR}^{19}$, $-\text{COOR}^{19}$, $-\text{CON(R}^{19})_2$, $-\text{OR}^{19}$, or $-\text{N(R}^{19})_2$,

wherein each R^{19} is independently -H or $\text{C}_1\text{-C}_6$ alkyl.

93. The compound according to claim 90, wherein each R^{41} is independently hydrogen, halogen, $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_1\text{-C}_6$ haloalkyl, $-\text{COR}^{16}$, $-\text{COOR}^{16}$, $-\text{CON(R}^{16})_2$, $-\text{C}\equiv\text{N}$, $-\text{OR}^{16}$, or $-\text{N(R}^{16})_2$, wherein each R^{16} is independently hydrogen, $\text{C}_1\text{-C}_6$ alkyl, or $\text{C}_1\text{-C}_6$ haloalkyl.

94. The compound according to claim 93, wherein each R^{41} is independently hydrogen, halogen, $\text{C}_1\text{-C}_6$ alkyl, or $\text{C}_1\text{-C}_6$ haloalkyl.

95. The compound according to claim 90, wherein each R^4 is independently halogen, nitro, $\text{CR}^{11}=\text{CR}^{11}\text{COOR}^{11}$, -M, or -E-M, wherein

E is $-\text{[C(R}^{15})_2]_m-$ or $\text{C}_3\text{-C}_8$ cycloalkyl;

M is $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_1\text{-C}_6$ haloalkyl, $-\text{COR}^{11}$, $-\text{COOR}^{11}$, $-\text{CON(R}^{11})_2$, $-\text{C}\equiv\text{N}$, $-\text{OR}^{11}$, $-\text{OCON(R}^{11})_2$, $-\text{OCO}_2\text{-R}^{11}$, $-\text{NR}^{11}\text{COR}^{11}$, $-\text{NR}^{11}\text{SO}_2\text{R}^{11}$, $-\text{N(R}^{11})_2$, $-\text{NR}^{11}\text{COOR}^{11}$, $-\text{SO}_2\text{R}^{11}$, $-\text{SO}_2\text{NR}^{11}\text{COR}^{11}$, $-\text{SO}_2\text{N(R}^{11})_2$, or $-\text{SR}^{11}$.

96. The compound according to claim 95, wherein each R^4 is independently halogen, $\text{CR}^{11}=\text{CR}^{11}\text{COOR}^{11}$, -M, or -E-M, wherein

E is $-\text{[C(R}^{15})_2]_m-$ or C₃-C₈ cycloalkyl;

M is C₁-C₆alkyl, C₁-C₆haloalkyl, $-\text{COR}^{11'}$, $-\text{COOR}^{11'}$, $-\text{CON(R}^{11'})_2$, $-\text{C}\equiv\text{N}$, $-\text{OR}^{11'}$, $-\text{NR}^{11'}\text{O}_2\text{R}^{11'}$, $-\text{N(R}^{11'})_2$, $-\text{SO}_2\text{R}^{11'}$, $-\text{SO}_2\text{NR}^{11'}\text{COR}^{11'}$, or $-\text{SO}_2\text{N(R}^{11'})_2$,

wherein each R^{11'} is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl,

wherein any of R^{11'} is optionally substituted with one or more radicals of R^{12'};

each R^{12'} is independently halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy,

$\text{C}=\text{O(OR}^{13})$, COR^{13} , SO_2R^{13} , $\text{CON(R}^{13})_2$, $\text{SO}_2\text{N(R}^{13})_2$, or $-\text{N(R}^{13})_2$.

97. The compound according to claim 90, wherein

R² is $-\text{L}^3-\text{R}^7$, wherein

L³ is a bond or $-(\text{CH}_2)_{m''}-\text{V}^1-(\text{CH}_2)_n-$ wherein

m'' is 0-3;

n is 0-3; and

V¹ is $-\text{C(R}^{11})_2-$, $-\text{O}-$, $-\text{S}-$, $-\text{NR}^7-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC(=O)}-$, or $-\text{SO}_2-$; and

R⁷ is hydrogen, halogen, nitro, aryl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl,

-C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or $-(\text{C(R}^{15})_2)_m-\text{Z}$, wherein

Z is $-\text{OR}^{11}$, $-\text{C(=O)R}^{11}$, $-\text{C(=O)OR}^{11}$, $-\text{C(=O)N(R}^{11})_2$, $-\text{N(R}^{11})_2$, $-\text{CN}$, $-\text{SO}_2\text{R}^{11}$,

$-\text{S(=O)}_2\text{N(R}^{11})_2$, $-\text{C(=O)N(R}^{11})\text{N(R}^{11})_2$, $-\text{C(=O)N(R}^{11})(\text{OR}^{11})$, $-\text{OC(=O)-R}^{11}$, or

$-\text{OC(=O)-N(R}^{11})_2$,

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl,

$-\text{OR}^{20}$, $-\text{C(=O)R}^{20}$, $-\text{C(=O)OR}^{20}$, $-\text{C(=O)N(R}^{20})_2$, $-\text{N(R}^{20})_2$, $-\text{N(R}^{20})\text{C(=O)R}^{20}$,

or $-\text{CN}$,

wherein each R²⁰ is independently -H or C₁-C₆alkyl.

98. The compound according to claim 97, wherein R² is $-\text{L}^3-\text{R}^7$, wherein

L³ is a bond or $-(\text{CH}_2)_{m''}-\text{V}^1-(\text{CH}_2)_n-$ wherein

m'' is 0-1; n is 0-2; and

V¹ is $-\text{CH}_2-$, $-\text{O}-$, $-\text{S}-$, or $-\text{NR}^7-$; and

R⁷ is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆

alkenyl, C₃-C₈ cycloalkyl, or $-(\text{C(R}^{15})_2)_m-\text{Z}$, wherein

Z is $-\text{OR}^{11''}$, $-\text{C(=O)R}^{11''}$, $-\text{C(=O)OR}^{11''}$, $-\text{C(=O)N(R}^{11''})_2$, $-\text{N(R}^{11''})_2$, $-\text{CN}$, or $-\text{SO}_2\text{R}^{11''}$,

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, $-\text{OR}^{11'}$, $-\text{N(R}^{11'})_2$, $-\text{COOR}^{11'}$, wherein each R^{11''} is

independently -H, -C₁-C₆alkyl, -C₁-C₆haloalkyl, heterocyclyl, or heteroaryl.

99. The compound according to claim 98, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

R^7 is hydrogen, halogen, $-C_1-C_3$ alkyl, $-C_1-C_3$ haloalkyl, or $-(C(R^{15})_2)-Z$, wherein

Z is $-OR^{11''}$ or $-SO_2R^{11''}$,

5 wherein $R^{11''}$ is $-H$ or C_1-C_6 alkyl.

100. The compound according to claim 92, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

101. The compound according to claim 94, wherein each R^4 is independently halogen, $CR^{11'}=CR^{11'}COOR^{11'}$, $-M$, or $-E-M$, wherein

10 E is $-[C(R^{15})_2]_m-$ or C_3-C_8 cycloalkyl;

M is C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-NR^{11'}O_2R^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, $-SO_2NR^{11'}COR^{11'}$, or $-SO_2N(R^{11'})_2$,

wherein each $R^{11'}$ is independently $-hydrogen$, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl,

wherein each $R^{11'}$ is optionally substituted with one or more radicals of $R^{12'}$;

15 each $R^{12'}$ is independently halogen, C_1-C_6 haloalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, $C=O(OR^{13})$, COR^{13} , SO_2R^{13} , $CON(R^{13})_2$, or $-N(R^{13})_2$.

102. The compound according to claim 96, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond or $-(CH_2)_m-V^1-(CH_2)_n-$ wherein

20 m is 0-1; n is 0-2; and

V^1 is $-CH_2-$, $-O-$, $-S-$, or $-NR^7-$; and

R^7 is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-C_2-C_6$ alkenyl, C_3-C_8 cycloalkyl, or $-(C(R^{15})_2)_m-Z$, wherein

Z is $-OR^{11}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, or $-SO_2R^{11''}$,

25 wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl, $-OR^{11''}$, $-N(R^{11''})_2$, $-COOR^{11''}$,

wherein $R^{11''}$ is $-H$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, heterocyclyl, or heteroaryl.

103. The compound according to claim 98, wherein each R^{5a} is independently halogen, nitro, heterocycloxy, phenoxy, $-C'$, $-B'-C'$, or $-A'-B'-C'$ wherein

30 A' is $-O-$;

B' is $-[C(R^{15})_2]_m-$;

C' is $-H$, halogen, $-OR^{18}$, $-COR^{18}$, $-C\equiv N$, $-C(O)OR^{18}$, $-OC(=O)R^{18}$, $-CON(R^{18})_2$, $-OCON(R^{18})_2$, $-NR^{18}COR^{18}$, $-NR^{18}CON(R^{18})_2$, $-NR^{18}COOR^{18}$, $-N(R^{18})_2$, or heterocyclyl;

wherein each R^{18} is independently -H, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

wherein each R^{5a} is optionally substituted one or more groups which are independently C₁-C₆ alkyl, halogen, -COR¹⁹, -COOR¹⁹, -CON(R¹⁹)₂, -OR¹⁹, or -N(R¹⁹)₂,

5 wherein R^{19} is -H or -C₁-C₆alkyl.

104. The compound according to claim 100, wherein each R^4 is independently halogen, CR^{11'}=CR^{11'}COOR^{11'}, -M, or -E-M, wherein

E is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

M is C₁-C₆alkyl, C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -NR^{11'}O₂R^{11'},
10 -N(R^{11'})₂, -SO₂R^{11'}, -SO₂NR^{11'}COR^{11'}, or -SO₂N(R^{11'})₂,

wherein each $R^{11'}$ is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl,

wherein any of $R^{11'}$ is optionally substituted with one or more radicals of $R^{12'}$;

each $R^{12'}$ is independently halogen, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy,

C=O(OR¹³), COR¹³, SO₂R¹³, CON(R¹³)₂, SO₂N(R¹³)₂, or -N(R¹³)₂.

15 105. The compound according to claim 101, wherein R^2 is -L³-R⁷, wherein

L³ is a bond or -(CH₂)_{m''}-V¹-(CH₂)_n- wherein

m'' is 0-1;

n is 0-2; and

V¹ is -CH₂-, -O-, -S-, or -NR⁷-; and

20 R^7 is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, or -(C(R¹⁵)₂)_m-Z, wherein

Z is -OR^{11''}, -C(=O)R^{11''}, -C(=O)OR^{11''}, -C(=O)N(R^{11''})₂, -N(R^{11''})₂, -CN, or -SO₂R^{11''},

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -OR^{11''}, -N(R^{11''})₂, -COOR^{11''},

25 wherein $R^{11''}$ is -H, -C₁-C₆alkyl, -C₁-C₆haloalkyl, heterocyclyl, or heteroaryl.

106. The compound according to claim 102, wherein each R^{5a} is independently halogen, nitro, heterocyclyloxy, phenoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is -[C(R¹⁵)₂]_m;

30 C' is -H, halogen, -OR¹⁸, -COR¹⁸, -C≡N, -C(O)OR¹⁸, -OC(=O)R¹⁸, -CON(R¹⁸)₂, -OCON(R¹⁸)₂, -NR¹⁸COR¹⁸, -NR¹⁸CON(R¹⁸)₂, -NR¹⁸COOR¹⁸, -N(R¹⁸)₂, or heterocyclyl;

wherein each R^{18} is independently -H, -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -C₃-C₈ cycloalkyl, aryl, heteroaryl, or heterocyclyl; and

wherein each R^{5a} is optionally substituted one or more groups which are independently C_1 - C_6 alkyl, halogen, $-\text{COR}^{19}$, $-\text{COOR}^{19}$, $-\text{CON}(\text{R}^{19})_2$, $-\text{OR}^{19}$, or $-\text{N}(\text{R}^{19})_2$,

wherein R^{19} is $-\text{H}$ or $-\text{C}_1$ - C_6 alkyl.

107. The compound according to claim 103, wherein each R^{41} is independently hydrogen, halogen,
5 $-\text{C}_1$ - C_6 alkyl, or $-\text{C}_1$ - C_6 haloalkyl.

108. The compound according to claim 104, wherein R^2 is $-\text{L}^3$ - R^7 , wherein

L^3 is a bond or $-(\text{CH}_2)_{m''}-\text{V}^1-(\text{CH}_2)_n-$ wherein

m'' is 0-1; n is 0-2; and

V^1 is $-\text{CH}_2-$, $-\text{O}-$, $-\text{S}-$, or $-\text{NR}^7-$; and

10 R^7 is hydrogen, halogen, phenyl, heteroaryl, heterocyclyl, $-\text{C}_1$ - C_6 alkyl, $-\text{C}_1$ - C_6 haloalkyl, $-\text{C}_2$ - C_6 alkenyl, C_3 - C_8 cycloalkyl, or $-(\text{C}(\text{R}^{15})_2)_m-\text{Z}$, wherein

Z is $-\text{OR}^{11''}$, $-\text{C}(=\text{O})\text{R}^{11''}$, $-\text{C}(=\text{O})\text{OR}^{11''}$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11''})_2$, $-\text{N}(\text{R}^{11''})_2$, $-\text{CN}$, or $-\text{SO}_2\text{R}^{11''}$,

wherein R^7 is optionally substituted with one or more R^{7a} , wherein

R^{7a} is halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, $-\text{OR}^{11''}$, $-\text{N}(\text{R}^{11''})_2$, $-\text{COOR}^{11''}$,

15 wherein $\text{R}^{11''}$ is $-\text{H}$, $-\text{C}_1$ - C_6 alkyl, $-\text{C}_1$ - C_6 haloalkyl, heterocyclyl, or heteroaryl.

109. The compound according to claim 89, wherein

R^1 is $-\text{L}^1$ - R^5 , wherein

L^1 is $-\text{L}^5$ - or $-\text{L}^6$ -, wherein

each L^5 is $-\text{C}(\text{R}^{15})_2-$, wherein

20 each R^{15} is independently hydrogen, halogen, $(\text{C}_1$ - $\text{C}_6)$ alkyl, or $(\text{C}_1$ - $\text{C}_6)$ haloalkyl; and

L^6 is $-\text{CS}-$, $-\text{CO}-$, or $-\text{SO}_2-$; and

R^5 is aryl or heteroaryl optionally substituted with one or more R^{5a} .

110. The compound according to claim 109, wherein

25 R^5 is phenyl, thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} .

111. The compound according to claim 110, wherein R^2 is $-\text{L}^3$ - R^7 , wherein

L^3 is a bond or $-\text{C}(\text{R}^{11''})_2-$; and

30 R^7 is hydrogen, halogen, $-\text{C}_1$ - C_6 alkyl, $-\text{C}_1$ - C_6 haloalkyl, $-\text{OR}^{11''}$, $-\text{C}(=\text{O})\text{R}^{11''}$, $-\text{C}(=\text{O})\text{OR}^{11''}$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11''})_2$, $-\text{N}(\text{R}^{11''})_2$, $-\text{CN}$, $-\text{SO}_2\text{R}^{11''}$, or $-\text{S}(=\text{O})_2\text{N}(\text{R}^{11''})_2$,

wherein each $\text{R}^{11''}$ is independently $-\text{H}$ or $-\text{C}_1$ - C_6 alkyl.

112. The compound according to claim 110, wherein each R^{5a} is independently $-\text{halogen}$, $-\text{C}_1$ - C_6 alkyl, $-\text{C}_1$ - C_6 haloalkyl, $-\text{OR}^{11}$, $-\text{COR}^{11}$, $-\text{C}\equiv\text{N}$, $-\text{C}(\text{O})\text{OR}^{11}$, $-\text{CON}(\text{R}^{11})_2$, or $-\text{N}(\text{R}^{11})_2$.

113. The compound according to claim 110, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

114. The compound according to claim 110, wherein each R^4 is independently halogen $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$,

5 wherein

each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

115. The compound according to claim 89, wherein

L^1 is a bond; and

R^5 is heteroaryl optionally substituted with one or more R^{5a} .

10 116. The compound according to claim 115, wherein

R^5 is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} .

117. The compound according to claim 116, wherein R^5 is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, or isoxazoyl optionally substituted with one or more R^{5a} .

15 118. The compound according to claim 117, wherein each R^{5a} is independently -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

119. The compound according to claim 117 wherein each R^4 is independently halogen $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11'}$, $-COOR^{11'}$, $-CON(R^{11'})_2$, $-C\equiv N$, $-OR^{11'}$, $-N(R^{11'})_2$, $-SO_2R^{11'}$, or $-SO_2N(R^{11'})_2$,
wherein

20 each $R^{11'}$ is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

120. The compound according to claim 117, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond or $-C(R^{11''})_2$; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11''}$, $-C(=O)R^{11''}$, $-C(=O)OR^{11''}$, $-C(=O)N(R^{11''})_2$, $-N(R^{11''})_2$, $-CN$, $-SO_2R^{11''}$, or $-S(=O)_2N(R^{11''})_2$,

25 wherein each $R^{11''}$ is independently -H or $-C_1-C_6$ alkyl.

121. The compound according to claim 117, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

122. The compound according to claim 116, wherein R^5 is pyridyl, pyrimidinyl, or pyrazinyl optionally substituted with one or more R^{5a} .

30 123. The compound according to claim 122, wherein each R^{5a} is -halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

124. The compound according to claim 122, wherein each R^4 is independently halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-C\equiv N$, $-OR^{11}$, $-N(R^{11})_2$, $-SO_2R^{11}$, or $-SO_2N(R^{11})_2$, wherein

each R^{11} is independently -hydrogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

5 125. The compound according to claim 122, wherein R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

R^7 is hydrogen, halogen, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-C_2-C_6$ alkenyl, C_3-C_8 cycloalkyl, or $-(C(R^{15})_2)_{m'}-Z$, wherein

m' is 0-1; and

10 Z is $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, $-CN$, or $-SO_2R^{11}$,

wherein R^{11} is -H or C_1-C_6 alkyl.

126. The compound according to claim 122, wherein each R^{41} is independently hydrogen, halogen, $-C_1-C_6$ alkyl, or $-C_1-C_6$ haloalkyl.

127. The compound according to claim 85, wherein K is heteroaryl; and L^2 is a bond.

15 128. The compound according to claim 127, wherein K is thienyl, furyl, pyrrolyl, thiazoyl, oxazoyl, isothiazoyl, isoxazoyl, pyridyl, pyrimidinyl, or pyrazinyl.

129. The compound according to claim 128, wherein K is pyridyl.

130. The compound according to claim 129, wherein

L^1 is a bond; and

20 R^5 is phenyl optionally substituted with one or more R^{5a} .

131. The compound according to claim 85, wherein K is absent; and L^2 is $-SO_2-$ or $-CO-$.

132. The compound according to claim 131, wherein

R^4 is heterocyclyl, $-OR^{11}$, or $-N(R^{11})_2$,

wherein the heterocyclyl is optionally substituted with one or more $-E'-M'$, wherein

25 E' is $-(C(R^{15})_2)_{m'}$ or C_3-C_8 cycloalkyl;

M' is -H, halogen, COR^{11} , $COOR^{11}$, $C\equiv N$, OR^{11} , $-NR^{11}COR^{11}$, $NR^{11}SO_2R^{11}$,

SO_2R^{11} , $SO_2N(R^{11})_2$, or SR^{11} .

133. The compound according to claim 1, wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

30 L^5 is $-(C(R^{15})_2)_{m'}$;

L^6 is C_3-C_8 cycloalkyl, $cycloC_{3-8}$ haloalkyl, or heterocyclyl, wherein the cycloalkyl, $cycloC_{3-8}$ haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, nitro, heterocyclyloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1 - C_6 alkoxy, - C' , - B' - C' , or - A' - B' - C' wherein

A' is -O-;

B' is $-[C(R^{15})_2]_m$ - or - C_3 - C_8 cycloalkyl-;

C' is -H, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl.

134. The compound according to claim 133, wherein

J is aryl or heteroaryl; and

K is aryl or heteroaryl.

135. The compound according to claim 134, wherein

R^2 is $-L^3-R^7$, wherein

L^3 is a bond; and

R^7 is hydrogen, -Z, or -Y-Z, wherein

Y is $-[C(R^{15})_2]_m$ - or - C_2 - C_6 alkenyl;

Z is -H, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$, -CN, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$ and

R^{21} is hydrogen, halogen, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl.

136. The compound according to claim 1, of formulas Ia or Id.

137. The compound according to claim 136, wherein

R^1 is $-L^5-R^5$ or $-L^6-R^5$ wherein

L^5 is $-[C(R^{15})_2]_m$;

L^6 is C_3 - C_8 cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl, wherein the cycloalkyl, cyclo C_{3-8} haloalkyl, or heterocyclyl are optionally substituted with one or more radicals of R^{14} ;

R^5 is aryl, heterocyclyl, or heteroaryl, wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6

alkenyl-, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C₁-C₆ alkoxy, -C', -B'-C', or -A'-B'-C' wherein

A' is -O-;

B' is $-\text{[C(R}^{15})_2]_m-$ or -C₃-C₈ cycloalkyl-;

5 C' is -H, halogen, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹, -OC(=O)R¹¹, -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂, -NR¹¹COOR¹¹, -N(R¹¹)₂, aryl, heteroaryl, or heterocyclyl.

138. The compound according to claim 137 wherein

10 J is aryl or heteroaryl; and

K is aryl or heteroaryl.

139. The compound according to claim 138, wherein

R² is -L³-R⁷, wherein

L³ is a bond; and

15 R⁷ is hydrogen, -Z, or -Y-Z, wherein

Y is $-\text{[C(R}^{15})_2]_m-$ or -C₂-C₆ alkenyl;

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -SO₂R¹¹, or -S(=O)₂N(R¹¹)₂ and

R²¹ is hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.

20 140. The compound according to claim 139, wherein J and K are both phenyl.

141. The compound according to claim 140, wherein R⁵ is aryl or heteroaryl,

wherein R⁵ is optionally substituted with one or more R^{5a}.

142. The compound according to claim 141, wherein R⁵ is phenyl optionally substituted with one or more R^{5a}, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹,

25 -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂

143. The compound according to claim 142, wherein each R⁴ is independently halogen, aryl, heteroaryl, heterocyclyl, -M, or -E-M, wherein

E is $-\text{[C(R}^{15'})_2]_m-$, wherein

each R^{15'} is independently hydrogen or halogen; and

30 M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, halogen, -OR¹¹, or -SO₂R¹¹.

144. The compound according to claim 142, wherein each R⁴¹ is independently halogen, -M'', or -E''-M'', wherein

E'' is $-\text{[C(R}^{15'})_2]_m-$,

wherein each $R^{15'}$ is independently hydrogen or halogen; and

M'' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, or halogen.

145. The compound according to claim 142, wherein

R^7 is hydrogen, $-Z$, or $-Y-Z$, wherein

5 Y is $-[C(R^{15})_2]_{m'}$ or $-C_2-C_6$ alkenyl, wherein

m' is 0, 1, or 2; and

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$,
 $-CN$, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$;

and R^{21} is hydrogen.

10 146. The compound according to claim 139, wherein J is heteroaryl and K is phenyl.

147. The compound according to claim 146, wherein J is pyrrolyl, thienyl, furyl, thiazoyl, oxazoyl, or pyrazoyl.

148. The compound according to claim 147, wherein R^5 is aryl or heteroaryl,

wherein R^5 is optionally substituted with one or more R^{5a} .

15 149. The compound according to claim 148, wherein R^5 is phenyl optionally substituted with one or more R^{5a} , wherein each R^{5a} is independently $-halogen$, $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, $-OR^{11}$, $-COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-CON(R^{11})_2$, or $-N(R^{11})_2$.

150. The compound according to claim 149, wherein each R^4 is independently halogen, aryl, heteroaryl, heterocyclyl, $-M$, or $-E-M$, wherein

20 E is $-[C(R^{15'})_2]_{m'}$, wherein

each $R^{15'}$ is independently hydrogen or halogen; and

M is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, halogen, $-OR^{11}$, or $-SO_2R^{11}$.

151. The compound according to claim 149, wherein each R^{41} is independently halogen, $-M''$, or $-E''-M''$, wherein

25 E'' is $-[C(R^{15'})_2]_{m'}$,

wherein each $R^{15'}$ is independently hydrogen or halogen; and

M'' is $-C_1-C_6$ alkyl, $-C_1-C_6$ haloalkyl, or halogen.

152. The compound according to claim 149, wherein

R^7 is hydrogen, $-Z$, or $-Y-Z$, wherein

30 Y is $-[C(R^{15})_2]_{m'}$ or $-C_2-C_6$ alkenyl, wherein

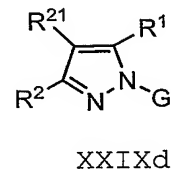
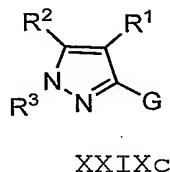
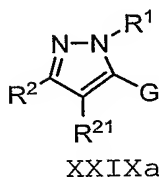
m' is 0, 1, or 2; and

Z is $-H$, halogen, $-OR^{11}$, $-C(=O)R^{11}$, $-C(=O)OR^{11}$, $-C(=O)N(R^{11})_2$, $-N(R^{11})_2$,
 $-CN$, $-SO_2R^{11}$, or $-S(=O)_2N(R^{11})_2$;

and R²¹ is hydrogen.

153. The compound according to claim 1 which is one of the compounds listed in Table 1.

154. A compound according to one of the formulas,



5 wherein,

(A) R¹ is -L¹-R⁵, wherein

L¹ is a bond, L⁵, L⁶, -L⁵-L⁶-L⁵-, or -L⁶-L⁵-L⁶-, wherein

each L⁵ is independently -[C(R¹⁵)₂]_m-, wherein

each m is independently 0, 1, 2, 3, 4, 5 or 6; and

10 each R¹⁵ is independently hydrogen, halogen, (C₁-C₆)alkyl, or (C₁-C₆)haloalkyl;

each L⁶ is independently -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-,

-C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -NR¹¹-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-,

-CS-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -CONR¹¹N(R¹¹)₂-, -CONR¹¹-, -OCONR¹¹-,

-SO₂-, -N(R¹⁰)SO₂-, -SO₂N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -NR¹⁰CSNR¹⁰-, -C(=NR¹¹)-,

15 -C(=NOR¹¹)-, -C(=NN(R¹¹)₂)-, aryl, C₃-C₈ cycloalkyl, cycloC₃₋₈haloalkyl, heteroaryl, or

heterocyclyl, wherein the aryl, cycloalkyl, cycloC₃₋₈haloalkyl, heteroaryl, or heterocyclyl

are optionally substituted with one or more radicals of R¹⁴;

or L¹ is a C₂₋₆ aldiyl aldiyl chain wherein the aldiyl chain is optionally interrupted by

-C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-,

20 -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -CON(R¹⁰)-, -CO-, -CO₂-, -OC(=O)-, -OC(=O)N(R¹⁰)-, -SO₂-,

-N(R¹⁰)SO₂-, or -SO₂N(R¹⁰)-, and

R⁵ is aryl, heterocyclyl, heteroaryl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-,

(C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, C₃-C₈ cycloalkyl, -C-, -B-C,

or -A-B-C, wherein

25 A is -O-;

B is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

C is C₁-C₆alkyl, C₁-C₆haloalkyl, SO₂R¹¹, SR¹¹, SO₂N(R¹¹)₂, SO₂NR¹¹COR¹¹, C≡N, C(O)OR¹¹,

CON(R¹¹)₂, or N(R¹¹)₂;

wherein R⁵ is optionally substituted with one or more R^{5a},

wherein each R^{5a} is independently C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, halogen, nitro, heterocycloxy, aryl, aryloxy, arylalkyl, aryloxyaryl, aryl C_1 - C_6 alkoxy, -C', -B'-C', or -A'-B'-C' wherein

5 A' is -O-;

B' is $-[C(R^{15})_2]_m$ - or - C_3 - C_8 cycloalkyl-;

C' is -H, halogen, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-N_3$, $-COR^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-C\equiv N$, $-C(O)OR^{11}$, $-OC(=O)R^{11}$, $-CON(R^{11})_2$, $-CON(R^{11})OR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, $-N(R^{11})_2$, aryl, heteroaryl, or heterocyclyl;

10 wherein each R^{5a} is optionally substituted one or more groups which are independently C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, (C_3 - C_8 cycloalkyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, (C_3 - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, C_0 - C_6 alkoxyaryl, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, aryl, aryl- C_1 - C_6 alkyl-, heteroaryl, halogen, $-NO_2$, $-C\equiv N$, $-COR^{11}$, $-COOR^{11}$, $-CON(R^{11})_2$, $-SO_2R^{11}$, $-OR^{11}$, $-SR^{11}$, $-SO_2R^{11}$, $-SO_2N(R^{11})_2$, $-SO_2NR^{11}COR^{11}$, $-OCON(R^{11})_2$, $-NR^{11}COR^{11}$, $-NR^{11}CON(R^{11})_2$, $-NR^{11}COOR^{11}$, or $-N(R^{11})_2$;

R^2 and R^{21} are $-L^3-R^7$, wherein

each L^3 is independently a bond $-V^1-(CH_2)_n-V^1$ -, or $-(CH_2)_m-V^1-(CH_2)_n$ - wherein

n is 0-6; and

20 each V^1 is independently $-C(R^{11})_2$ -, $-C(R^{11})_2C(R^{11})_2$ -, $-C(R^{11})=C(R^{11})$ -, $-C(R^{11})_2O$ -, $-C(R^{11})_2NR^{11}$ -, $-C\equiv C$ -, $-O$ -, $-S$ -, $-NR^7$ -, $-N(R^{10})CO$ -, $-N(R^{10})CO_2$ -, $-OCO$ -, $-CO$ -, $-CS$ -, $-CONR^{10}$ -, $-C(=N)(R^{11})$ -, $-C(=N-OR^{11})$ -, $-C[=N-N(R^{11})_2]$ -, $-CO_2$ -, $-OC(=O)$ -, $-OC(=O)N(R^{10})$ -, $-SO_2$ -, $-N(R^{10})SO_2$ -, $-SO_2N(R^{10})$ -, $-NR^{10}CONR^{10}$ -, $-NR^{10}CSNR^{10}$ -, C_3 - C_8 cycloalkyl, or C_3 - C_8 cyclohaloalkyl;

25 or each L^3 is independently a C_{2-6} alidiyl chain, wherein the alidiyl chain is optionally interrupted by $-C(R^{11})_2$ -, $-C(R^{11})_2C(R^{11})_2$ -, $-C(R^{11})=C(R^{11})$ -, $-C(R^{11})_2O$ -, $-C(R^{11})_2NR^{11}$ -, $-C\equiv C$ -, $-O$ -, $-S$ -, $-N(R^{10})CO$ -, $-N(R^{10})CO_2$ -, $-CON(R^{10})$ -, $-CO$ -, $-CO_2$ -, $-OC(=O)$ -, $-OC(=O)N(R^{10})$ -, $-SO_2$ -, $-N(R^{10})SO_2$ -, or $-SO_2N(R^{10})$; and

30 each R^7 is independently hydrogen, halogen, nitro, cyano, aryl, heteroaryl, heterocyclyl, $-C_1$ - C_6 alkyl-heterocyclyl, $-C_1$ - C_6 alkyl-heteroaryl, $-C_1$ - C_6 alkyl-aryl, -Z-, -Y-Z, or -X-Y-Z, wherein

X is -O-;

Y is $-[C(R^{15})_2]_m$ -, C_2 - C_6 alkenyl or C_3 - C_8 cycloalkyl;

Z is -H, -CN, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -CN, -N₃, -SO₂R¹¹, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-N(R¹¹)₂, or -N(R¹¹)COOR¹¹;

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen, C₂-C₆ alkenyl, -C₁-C₆ alkyl-heterocyclyl, -C₁-C₆ alkyl-heteroaryl, -C₁-C₆ alkyl-aryl, C₀-C₆ alkoxyheteroaryl, C₀-C₆ alkoxyheterocyclyl, haloaryl, aryloxy, aralkyloxy, aryloxyalkyl, C₁-C₆ alkoxyaryl, aryl C₀-C₆ alkylcarboxy, C(R¹¹)=C(R¹¹)-COOR¹¹, C₀-C₆ alkoxyheteroaryl, C₀-C₆ alkoxyheterocyclyl, aryl, heteroaryl, heterocyclyl, C₃-C₈ cycloalkyl, heteroaryloxy, -Z', -Y'-Z', or -X'-Y'-Z', wherein

X' is -O-;

Y' is -[C(R¹⁵)₂]_m- or C₃-C₈ cycloalkyl;

Z' is -C₁-C₆ alkyl, -C₁-C₆ haloalkyl, -OR¹¹, -SR¹¹, -S(=O)₂R¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -N(R¹¹)C(=O)R¹¹, -S(=O)₂N(R¹¹)C(=O)R¹¹, -CN, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, -C(=O)N(R¹¹)(OR¹¹), -OC(=O)-R¹¹, -OC(=O)-OR¹¹, -N(R¹¹)C(=O)O-R¹¹, or -N(R¹¹)S(=O)₂R¹¹;

wherein each R^{7a} is optionally substituted with one or more R⁸,

wherein each R⁸ is independently halogen, nitro, cyano, heteroaryl, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkyl, C₁-C₆ haloalkyl(OR¹¹), C₀-C₆ alkylOR¹¹, C₀-C₆ alkylCON(R¹¹)₂, C₀-C₆ alkylCOR¹¹, C₀-C₆ alkylCOOR¹¹, or C₀-C₆ alkylSO₂R¹¹; and wherein if two R^{7a} are present on the same carbon, then they may be taken together to form a cycloalkyl or heterocyclyl group; provided that R² and R²¹ are not simultaneously -H;

R³ is -L-R⁶, wherein

L is a bond, -X³-(CH₂)_n-X³-, -(CH₂)_m-X³-(CH₂)_n- or -(CH₂)_{1+w}-Y³-(CH₂)_w- wherein

n is 0-6; each w is independently 0-5; and

each X³ is independently a bond, -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C≡C-, -CO-, -CS-, -CONR¹⁰-, -C(=N)(R¹¹)-, -C(=N-OR¹¹)-, -C[=N-N(R¹¹)₂], -CO₂-, -SO₂-, or -SO₂N(R¹⁰)-, and

Y³ is -O-, -S-, -NR⁷-, -N(R¹⁰)CO-, -N(R¹⁰)CO₂-, -OCO-, -OC(=O)N(R¹⁰)-, -NR¹⁰CONR¹⁰-, -N(R¹⁰)SO₂-, or -NR¹⁰CSNR¹⁰-;

or L is a C₂₋₆ alidiyl chain, wherein the alidiyl chain is optionally interrupted by -C(R¹¹)₂-, -C(R¹¹)₂C(R¹¹)₂-, -C(R¹¹)=C(R¹¹)-, -C(R¹¹)₂O-, -C(R¹¹)₂NR¹¹-, -C≡C-, -O-, -S-, -N(R¹⁰)CO-,

$-\text{N}(\text{R}^{10})\text{CO}_2-$, $-\text{CON}(\text{R}^{10})-$, $-\text{CO}-$, $-\text{CO}_2-$, $-\text{OC}(=\text{O})-$, $-\text{OC}(=\text{O})\text{N}(\text{R}^{10})-$, $-\text{SO}_2-$, $-\text{N}(\text{R}^{10})\text{SO}_2-$, or $-\text{SO}_2\text{N}(\text{R}^{10})$; and

R^6 is C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, aryl, C_3 - C_8 cycloalkyl, heteroaryl, heterocyclyl, $-\text{CN}$, $-\text{C}(=\text{O})\text{R}^{11}$, $-\text{C}(=\text{O})\text{OR}^{11}$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})_2$, $-\text{N}(\text{R}^{11})_2$, $-\text{SO}_2\text{R}^{11}$, $-\text{S}(=\text{O})_2\text{N}(\text{R}^{11})_2$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})\text{N}(\text{R}^{11})_2$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})(\text{OR}^{11})$, wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with one or more R^{6a} , wherein

each R^{6a} is independently $-\text{Z}''$, $-\text{Y}''-\text{Z}''$, or $-\text{X}''-\text{Y}''-\text{Z}''$, wherein

X'' is $-\text{O}-$;

Y'' is $-\text{[C(R}^{15})_2]_m-$, C_2 - C_6 alkenyl, C_3 - C_8 cycloalkyl, heterocyclyl, aryl, or heteroaryl, wherein

the aryl, heteroaryl, cycloalkyl, or heterocyclyl is optionally substituted with at least one group which is each independently Z'' ;

Z'' is $-\text{H}$, $-\text{CN}$, halogen, $-\text{OR}^{11}$, $-\text{C}(=\text{O})\text{R}^{11}$, $-\text{C}(=\text{O})\text{OR}^{11}$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})_2$, $-\text{N}(\text{R}^{11})_2$, $-\text{N}_3$, $-\text{SO}_2\text{R}^{11}$, $-\text{S}(=\text{O})_2\text{N}(\text{R}^{11})_2$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})\text{N}(\text{R}^{11})_2$, $-\text{N}(\text{R}^{11})\text{C}(=\text{O})\text{N}(\text{R}^{11})_2$, $-\text{OC}(=\text{O})-\text{OR}^{11}$, $-\text{C}(=\text{O})\text{N}(\text{R}^{11})(\text{OR}^{11})$, $-\text{OC}(=\text{O})-\text{R}^{11}$, $-\text{OC}(=\text{O})-\text{N}(\text{R}^{11})_2$, or $-\text{N}(\text{R}^{11})\text{COOR}^{11}$;

each R^{10} is independently $-\text{R}^{11}$, $-\text{C}(=\text{O})\text{R}^{11}$, $-\text{CO}_2\text{R}^{11}$, or $-\text{SO}_2\text{R}^{11}$;

each R^{11} is independently $-\text{hydrogen}$, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(\text{C}_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, $(\text{C}_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-, $-\text{N}(\text{R}^{12})_2$, $-\text{C}_1$ - C_6 alkyl, $-\text{C}_1$ - C_6 haloalkyl, $-\text{C}_3$ - C_8 cycloalkyl, $-(\text{C}_1$ - $\text{C}_6)$ alkyl- $(\text{C}_3$ - $\text{C}_8)$ cycloalkyl, aryl, $-(\text{C}_1$ - $\text{C}_6)$ alkyl-aryl, heteroaryl, $-(\text{C}_1$ - $\text{C}_6)$ alkyl-heteroaryl, heterocyclyl, or $-(\text{C}_1$ - $\text{C}_6)$ alkyl-heterocyclyl,

wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently hydrogen, halogen, C_1 - C_6 haloalkyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, $(\text{C}_0$ - C_6 alkyl) $\text{C}=\text{O}(\text{OR}^{13})$, C_0 - C_6 alkyl OR^{13} , C_0 - C_6 alkyl COR^{13} , C_0 - C_6 alkyl SO_2R^{13} , C_0 - C_6 alkyl CN , C_0 - C_6 alkyl $\text{CON}(\text{R}^{13})_2$, C_0 - C_6 alkyl $\text{CONR}^{13}\text{OR}^{13}$, C_0 - C_6 alkyl $\text{SO}_2\text{N}(\text{R}^{13})_2$, C_0 - C_6 alkyl SR^{13} , C_0 - C_6 haloalkyl OR^{13} , aryloxy, aralkyloxy, aryloxyalkyl, C_0 - C_6 alkoxyaryl, aryl C_0 - C_6 alkylcarboxy, C_0 - C_6 alkyl $\text{NR}^{13}\text{SO}_2\text{R}^{13}$, $-\text{C}_0$ - C_6 alkyl $\text{N}(\text{R}^{13})_2$, or OC_0 - C_6 alkyl COOR^{13} ;

each R^{13} is independently hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, $(\text{C}_3$ - C_8 cycloalkyl)- C_1 - C_6 alkyl-, $(\text{C}_3$ - C_8 cycloalkenyl)- C_1 - C_6 alkyl-, or $(\text{C}_3$ - C_8 cycloalkyl)- C_2 - C_6 alkenyl-;

each R^{14} is independently C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, C_1 - C_6 haloalkyl, C_0 - C_6 alkyl $\text{CON}(\text{R}^{11})_2$, C_0 - C_6 alkyl $\text{CONR}^{11}\text{OR}^{11}$, C_0 - C_6 alkyl OR^{11} , or C_0 - C_6 alkyl COOR^{11} ;

II 1.

1

10

1

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20 a' is

provided via

i

25

(ii)

20

- (c) R^1 is not 4-hydroxyphenyl;
- (iii) if the compound is defined by formula XXIXc, then
- (a) R^2 is not 4-(NH_2SO_2)phenyl, 4-(CH_3SO_2)phenyl, or 4-(CH_2FSO_2)phenyl
- 5 (b) J is not pyridyl;
- (iv) if the compound is defined by formula XXIXd, then
- (a) if L^1 is a bond, then R^1 is not thienyl or 5-methylthienyl;
- (b) if G is 4-fluorophenyl, then R^1 is not
- 10 4-[($\text{H}_2\text{NS}(=\text{O})_2$)]phenyl-
- (c) R^1 is not 4-Me-phenyl

155. A compound according to claim 154 which is one of the species listed in Table 2.

156. A compound according to claim 1, wherein:

15 R^1 is $-\text{L}^1-\text{R}^5$, wherein

L^1 is a bond, L^5 , L^6 , $-\text{L}^5-\text{L}^6-\text{L}^5$ -, or $-\text{L}^6-\text{L}^5-\text{L}^6$ -, wherein

each L^5 is independently $-\text{C}(\text{R}^{15})_2\text{m}$ -, wherein

m is 0, 1, 2, 3, or 4; and

each R^{15} is independently hydrogen, halogen, $(\text{C}_1\text{-C}_6)\text{alkyl}$, or $(\text{C}_1\text{-C}_6)\text{haloalkyl}$; and

20 L^6 is $-\text{CO}$ -, $-\text{SO}_2$ -, $-\text{O}$ -, $-\text{CON}(\text{R}^{11})$ -, $-\text{C}_3\text{-C}_6\text{cycloalkyl}$ -, or $-\text{heterocyclyl}$ -,

wherein the cycloalkyl, or heterocyclyl is optionally substituted with one or more R^{14} ; and

R^5 is aryl, heterocyclyl, heteroaryl, $-\text{C}$, or $-\text{B-C}$, wherein

B is $-\text{C}(\text{R}^{15})_2\text{m}$ - or $-\text{C}_3\text{-C}_6\text{cycloalkyl}$ -, and

25 C is halogen, $-\text{C}_1\text{-C}_6\text{alkyl}$, or $-\text{C}_1\text{-C}_6\text{haloalkyl}$;

wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, $\text{C}_2\text{-C}_6$ alkenyl, $\text{C}_2\text{-C}_6$ alkynyl, $(\text{C}_3\text{-C}_8\text{ cycloalkyl})\text{-C}_1\text{-C}_6\text{ alkyl}$ -, $(\text{C}_3\text{-C}_8\text{ cycloalkenyl})\text{-C}_1\text{-C}_6\text{ alkyl}$ -, $(\text{C}_3\text{-C}_8\text{ cycloalkyl})\text{-C}_2\text{-C}_6\text{ alkenyl}$ -, aryl, arylalkyl, aryloxy, aryloxyaryl, aryl C_{1-6} alkoxy, $\text{C}_1\text{-C}_6\text{ alkyl}$, $\text{C}_1\text{-C}_6\text{ haloalkyl}$, $\text{C}_3\text{-C}_6\text{cycloalkyl}$, SO_2R^{11} , OR^{11} , SR^{11} , N_3 , SO_2R^{11} , COR^{11} , $\text{SO}_2\text{N}(\text{R}^{11})_2$, $\text{SO}_2\text{NR}^{11}\text{COR}^{11}$, $\text{C}\equiv\text{N}$, $\text{C}(\text{O})\text{OR}^{11}$, $\text{CON}(\text{R}^{11})_2$, $\text{CON}(\text{R}^{11})\text{OR}^{11}$, $\text{OCON}(\text{R}^{11})_2$, $\text{NR}^{11}\text{COR}^{11}$, $\text{NR}^{11}\text{CON}(\text{R}^{11})_2$, $\text{NR}^{11}\text{COOR}^{11}$, or $\text{N}(\text{R}^{11})_2$, wherein

each R^{5a} is optionally substituted with one or more groups which independently are $-\text{halogen}$, $-\text{C}_1\text{-C}_6\text{ alkyl}$, aryloxy, $\text{C}_{0-6}\text{ alkylSO}_2\text{R}^{11}$, C_{0-6}

alkylCOOR¹¹, C₀₋₆ alkoxyaryl, -C₁-C₆ haloalkyl, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃,
 -SO₂R¹¹, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹,
 -CON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂,
 -NR¹¹COOR¹¹, or -N(R¹¹)₂;

5 R² is -L³-R⁷, wherein

L³ is a bond; and

R⁷ is, halogen, aryl, heteroaryl, heterocyclyl, -Z, or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

10 Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂,
 -C(=N-OH)R¹¹, -C(=S)N(R¹¹)₂, -CN, -S(=O)₂N(R¹¹)₂, -C(=O)N(R¹¹)N(R¹¹)₂, or
 -C(=O)N(R¹¹)(OR¹¹);

wherein R⁷ is optionally substituted with one or more R^{7a}, wherein

R^{7a} is halogen -Z', -Y'-Z', or -X'-Y'-Z', wherein

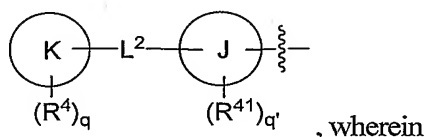
X' is -O-;

15 Y' is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

Z' is -H, halogen, -OR¹¹, -SR¹¹, -S(=O)₂R¹¹, -C(=O)R¹¹, -C(=O)OR¹¹,
 -C(=O)N(R¹¹)₂, -N(R¹¹)₂, -N(R¹¹)C(=O)R¹¹, -CN, -S(=O)₂N(R¹¹)₂, -
 -C(=O)N(R¹¹)(OR¹¹), or -N(R¹¹)S(O=)₂R¹¹;

R²¹ and R³ are each independently hydrogen, halogen, C₁-C₆alkyl, or C₁-C₆haloalkyl; and

20 G is a group of the formula,



J is aryl or heteroaryl;

K is aryl or heteroaryl;

25 each R⁴ and R⁴¹ are independently halogen, aryloxy, aralkyloxy, aryloxyalkyl, arylC₀-C₆
 alkylcarboxy, aryl, heteroaryl, heterocyclyl, heteroaryloxy, heterocycliloxy, -M, -E-M, or -
 D-E-M, wherein

D is -O-;

E is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

30 M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹,
 -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹SO₂R¹¹, -N(R¹¹)₂, -NR¹¹COOR¹¹, -SOR¹¹, -SO₂R¹¹,
 -SO₂NR¹¹COR¹¹, -SO₂N(R¹¹)₂, or -SR¹¹,

L^2 is a bond;

q is 1, 2, or 3; and

q' is 0, 1, 2, or 3;

each R^{10} is independently $-R^{11}$, $-C(=O)R^{11}$, $-CO_2R^{11}$, or $-SO_2R^{11}$;

5 each R^{11} is independently -hydrogen, $-C_1-C_6$ alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, or $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-; C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, $-C_3-C_8$ cycloalkyl, $-C_1-C_6$ haloalkyl, $-N(R^{12})_2$, aryl, $-(C_1-C_6)$ alkyl-aryl, heteroaryl, $-(C_1-C_6)$ alkyl-heteroaryl, heterocyclyl, or $-(C_1-C_6)$ alkyl-heterocyclyl,

10 wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently halogen, C_0-C_6 alkylN(R^{13})₂, C_1-C_6 haloalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, $(C_0-C_6$ alkyl)C=O(OR¹³); C_0-C_6 alkylOR¹³, C_0-C_6 alkylCOR¹³, C_0-C_6 alkylSO₂R¹³, C_0-C_6 alkylCON(R^{13})₂, C_0-C_6 alkylCONR¹³OR¹³, C_0-C_6 alkylSO₂N(R^{13})₂, C_0-C_6 alkylSR¹³, C_0-C_6 haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C_0-C_6 alkoxyaryl, arylC₀₋₆ alkylcarboxy, C_0-C_6 alkyl, $-NR^{13}SO_2R^{13}$, or $-OC_0-6$ alkylCOOR¹³;

15

each R^{13} is independently hydrogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, or $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-; and

each R^{14} is independently C_1-C_6 alkyl, C_1-C_6 alkoxy, halogen, C_1-C_6 haloalkyl, C_0-C_6 alkylCON(R^{11})₂,

20 C_0-C_6 alkylCONR¹¹OR¹¹, C_0-C_6 alkylOR¹¹, or C_0-C_6 alkylCOOR¹¹.

157. A compound according to claim 1, wherein:

R^1 is $-L^1-R^5$, wherein

L^1 is a bond, $-C_3-C_8$ cycloalkyl- or L^5 , wherein

each L^5 is independently $-[C(R^{15})_2]_m-$, wherein

25 m is 0, 1, 2, or 3; and

each R^{15} is independently hydrogen, halogen, (C_1-C_6) alkyl, or (C_1-C_6) haloalkyl; and

R^5 is aryl, heterocyclyl, heteroaryl, -C, or -B-C, wherein

B is $-[C(R^{15})_2]_m-$, $-C_3-C_6$ cycloalkyl-; and

C is $-C_1-C_6$ alkyl or $-C_1-C_6$ haloalkyl;

30 wherein R^5 is optionally substituted with one or more R^{5a} , wherein

each R^{5a} is independently halogen, nitro, heteroaryl, heterocyclyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $(C_3-C_8$ cycloalkyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkenyl)- C_1-C_6 alkyl-, $(C_3-C_8$ cycloalkyl)- C_2-C_6 alkenyl-, aryl, arylalkyl, aryloxy, aryloxyaryl, arylC₁₋₆ alkoxy, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_3-C_6 cycloalkyl, SO_2R^{11} , OR^{11} , SR^{11} , N_3 , SO_2R^{11} , COR^{11} , $SO_2N(R^{11})_2$,

$\text{SO}_2\text{NR}^{11}\text{COR}^{11}$, $\text{C}\equiv\text{N}$, $\text{C}(\text{O})\text{OR}^{11}$, $\text{CON}(\text{R}^{11})_2$, $\text{CON}(\text{R}^{11})\text{OR}^{11}$, $\text{OCON}(\text{R}^{11})_2$,
 $\text{NR}^{11}\text{COR}^{11}$, $\text{NR}^{11}\text{CON}(\text{R}^{11})_2$, $\text{NR}^{11}\text{COOR}^{11}$, or $\text{N}(\text{R}^{11})_2$, wherein

each R^{5a} is optionally substituted with one or more groups which
independently are -halogen, -C₁-C₆ alkyl, aryloxy, C₀₋₆ alkylSO₂R¹¹, C₀₋₆
5 alkylCOOR¹¹, C₀₋₆ alkoxyaryl, -C₁-C₆ haloalkyl, -SO₂R¹¹, -OR¹¹, -SR¹¹, -N₃,
-SO₂R¹¹, -COR¹¹, -SO₂N(R¹¹)₂, -SO₂NR¹¹COR¹¹, -C≡N, -C(O)OR¹¹,
-COON(R¹¹)₂, -CON(R¹¹)OR¹¹, -OCON(R¹¹)₂, -NR¹¹COR¹¹, -NR¹¹CON(R¹¹)₂,
-NR¹¹COOR¹¹, or -N(R¹¹)₂;

R^2 is -L³-R⁷, wherein

10 L³ is a bond; and

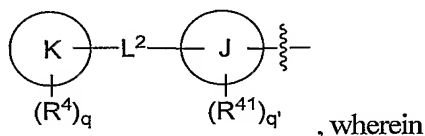
R⁷ is -Z or -Y-Z, wherein

Y is -[C(R¹⁵)₂]_m-, or -C₃-C₆cycloalkyl; and

Z is -H, halogen, -OR¹¹, -C(=O)R¹¹, -C(=O)OR¹¹, -C(=O)N(R¹¹)₂, -N(R¹¹)₂,
-C(=N-OH)R¹¹, -C(=S)N(R¹¹)₂, -CN, -S(=O)₂N(R¹¹)₂, -OC(=O)-R¹¹, or
15 -OC(=O)-N(R¹¹)₂;

R²¹ and R³ are each independently hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl; and

G is a group of the formula,



J is aryl or heteroaryl;

20 K is aryl or heteroaryl;

each R⁴ and R⁴¹ are independently halogen, heteroaryl, heterocyclyl, -M, -E-M, or -D-E-M,
wherein

D is -O-;

E is -[C(R¹⁵)₂]_m- or -C₃-C₆cycloalkyl; and

25 M is -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR¹¹, -COOR¹¹, -CON(R¹¹)₂, -C≡N, -OR¹¹, -
SOR¹¹, -SO₂R¹¹, -SO₂N(R¹¹)₂, or -SR¹¹,

L² is a bond;

q is 1, 2, or 3, and

q' is 0, 1, 2 or 3,

30 each R¹⁰ is independently -R¹¹, -C(=O)R¹¹, -CO₂R¹¹, or -SO₂R¹¹;

each R^{11} is independently -hydrogen, -C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-, -C₃-C₈ cycloalkyl-, -(C₁-C₆)alkyl-(C₃-C₈)cycloalkyl-, -C₁-C₆ haloalkyl-, -N(R¹²)₂, aryl, -(C₁-C₆)alkyl-aryl, heteroaryl, -(C₁-C₆)alkyl-heteroaryl, heterocyclyl, or -(C₁-C₆)alkyl-heterocyclyl,

5 wherein any of R^{11} is optionally substituted with one or more radicals of R^{12} ;

each R^{12} is independently halogen, OR¹³, N(R¹³)₂, C₁-C₆haloalkyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, (C₀-C₆ alkyl)C=O(OR¹³); C₀-C₆ alkylOR¹³, C₀-C₆ alkylCOR¹³, C₀-C₆ alkylSO₂R¹³, C₀-C₆ alkylCON(R¹³)₂, C₀-C₆ alkylCONR¹³OR¹³, C₀-C₆ alkylSO₂N(R¹³)₂, C₀-C₆ alkylSR¹³, C₀-C₆ haloalkylOR¹³, aryloxy, aralkyloxy, aryloxyalkyl, C₀-alkoxyaryl, arylC₀₋₆ alkylcarboxy, C₀-C₆ alkyl, -NR¹³SO₂ R¹³, or -OC₀₋₆ alkylCOOR¹³;

each R^{13} is independently hydrogen C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, (C₃-C₈ cycloalkyl)-C₁-C₆ alkyl-, (C₃-C₈ cycloalkenyl)-C₁-C₆ alkyl-, or (C₃-C₈ cycloalkyl)-C₂-C₆ alkenyl-;

each R^{14} is independently C₁-C₆ alkyl, C₁-C₆ alkoxy, halogen, C₁-C₆ haloalkyl, C₀-C₆ alkylCON(R¹¹)₂, C₀-C₆ alkylCONR¹¹OR¹¹, C₀-C₆ alkylOR¹¹, or C₀-C₆ alkylCOOR¹¹.

158. The compound according to claim 7, wherein R^5 is pyridyl optionally substituted with one or more R^{5a} .

159. The compound according to claim 158, wherein each R^{5a} is independently -halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR¹¹, -COR¹¹, -C≡N, -C(O)OR¹¹, -CON(R¹¹)₂, or -N(R¹¹)₂.

160. The compound according to claim 158, wherein each R^{41} is independently hydrogen, halogen, -C₁-C₆alkyl, or -C₁-C₆haloalkyl.

161. The compound according to claim 158, wherein R^2 is -L³-R⁷, wherein

L³ is a bond or -C(R^{11'})₂; and

R⁷ is hydrogen, halogen, -C₁-C₆alkyl, -C₁-C₆haloalkyl, -OR^{11'}, -C(=O)R^{11'}, -C(=O)OR^{11'}, -C(=O)N(R^{11'})₂, -N(R^{11'})₂, -CN, -SO₂R^{11'}, or -S(=O)₂N(R^{11'})₂,

wherein each $R^{11'}$ is independently -H or -C₁-C₆alkyl.

162. The compound according to claim 158, wherein each R^4 is independently halogen -C₁-C₆alkyl, -C₁-C₆haloalkyl, -COR^{11'}, -COOR^{11'}, -CON(R^{11'})₂, -C≡N, -OR^{11'}, -N(R^{11'})₂, -SO₂R^{11'}, or -SO₂N(R^{11'})₂, wherein each $R^{11'}$ is independently -hydrogen, -C₁-C₆ alkyl, or -C₁-C₆ haloalkyl.

163. A method of treating, preventing, inhibiting, or ameliorating the symptoms of a disease or disorder that is modulated or otherwise affected by nuclear receptor activity or in which nuclear receptor activity is implicated, comprising administering to a subject in need thereof a therapeutically effective amount of a compound according to part (A) of claim 1.

164. The method of claim 163 wherein the disease or disorder is hypercholesterolemia, hyperlipoproteinemia, hypertriglyceridemia, lipodystrophy, hyperglycemia, diabetes mellitus, dyslipidemia, atherosclerosis, gallstone disease, acne vulgaris, acneiform skin conditions, diabetes, Parkinson's disease, cancer, Alzheimer's disease, inflammation, immunological disorders, lipid disorders, obesity, conditions characterized by a perturbed epidermal barrier function, conditions of disturbed differentiation or excess proliferation of the epidermis or mucous membrane, or cardiovascular disorders.

165. A method of modulating nuclear receptor activity, comprising contacting the nuclear receptor with a compound according to part (A) of claim 1.

166. A pharmaceutical composition comprising a compound of claim 1, or a pharmaceutically acceptable derivative thereof in a pharmaceutically acceptable carrier.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/024749

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D233/54 C07D401/04 C07D409/04 A61K31/415 A61P3/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

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